96th year

AMERICAN

NOVEMBER 19

Vol. 181—No. 6

Gas Journal

JAN – 6 1955

THE LIBRARY OF CONGRESS
SERIAL RECORD
JAN – 6 1955
Copy

MODEL 5B-225
CAPACITY UP TO
225 CFH OF 0.6.
GAS AT ½"
PRESSURE DROP

American Meter
Company's **NEW**
Aluminumcase Meter

NEW Light Weight
NEW High Capacity
NEW Attractive Design
NEW Extra Value

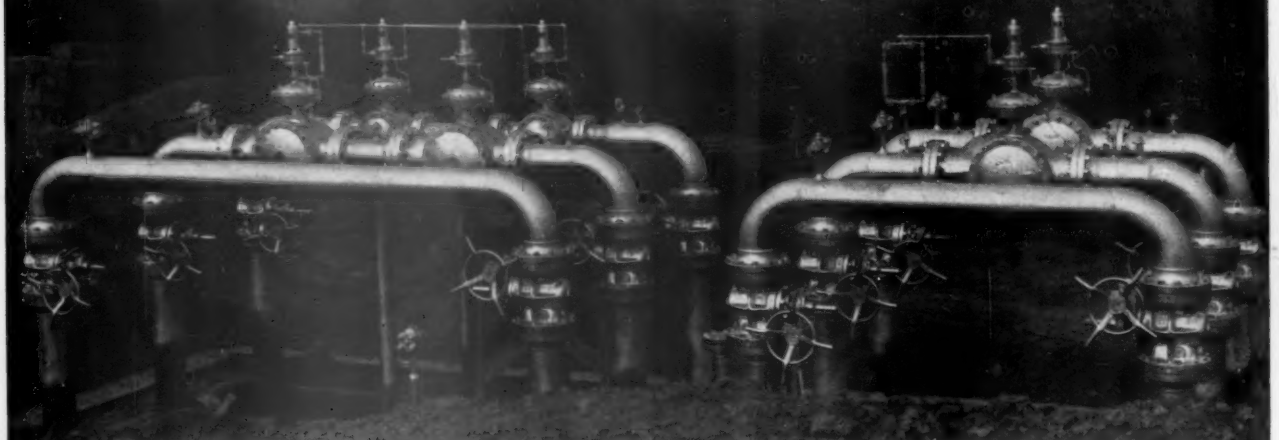
plus Every Time-tested
American® Quality Feature

AMERICAN®
METER COMPANY

GENERAL SALES OFFICE: 1513 Race Street, Philadelphia • Albany • Alhambra • Atlanta
Baltimore • Birmingham • Boston • Chicago • Dallas • Denver • Erie • Houston • Kansas City
Los Angeles • Minneapolis • New York • Omaha • Pittsburgh • San Francisco • Seattle • Tulsa
IN CANADA: Canadian Meter Company, Limited, Hamilton • Edmonton • Calgary

They're Building Right!

FROM THE GROUND UP



with ROCKWELL "015" High Pressure REGULATORS and ROCKWELL-NORDSTROM Lubricant Sealed VALVES

New Regulating Station Being Erected by a Pennsylvania Gas Utility.

Want the finest degree of pressure control; the ultimate in easy, sure, long lasting valve operation? Then build your new stations around Rockwell "015" regulators and Nordstrom valves.

Consider the exclusive advantages in these two Rockwell-built products. The regulators are readily adaptable to meet changing conditions. Any of six control systems (see below) can be applied to the same basic body. And the interchangeable inlet bowl feature permits sizing regulator capacity up or down to meet increased or decreased needs.

Nordstrom valves are lubricant-sealed to assure a safe, complete closure even when operated infrequently. They turn easily — outlast, outperform all other types on gas service.

Complete technical information on these pressure-guarding Rockwell products is available in bulletins that you may request. Or ask the Rockwell salesman. Write us and he he will see you.

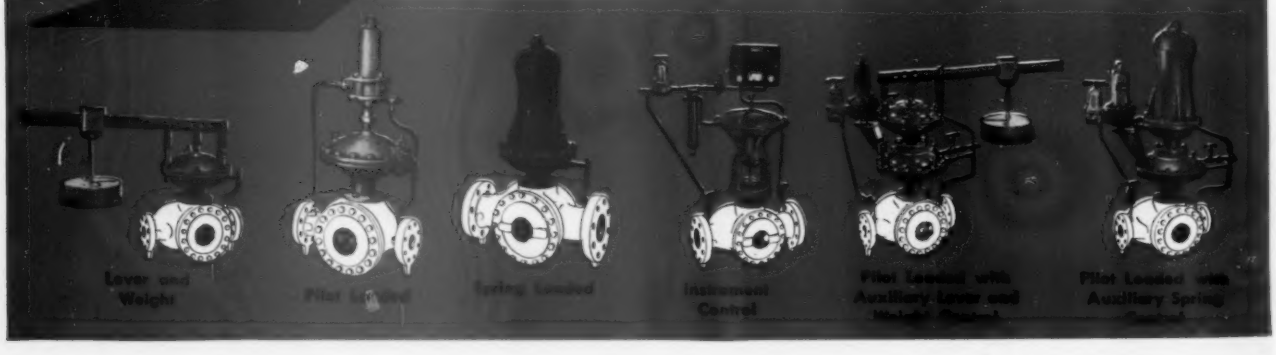
YOU CAN RELY ROCKWELL ON ROCKWELL

ROCKWELL MANUFACTURING COMPANY

PITTSBURGH 8, PA. Atlanta Boston Chicago Houston Los Angeles New York N. Kansas City Philadelphia Pittsburgh San Francisco Seattle Tulsa

In Canada: Peacock Brothers Limited

ANY OF THESE CONTROL SYSTEMS APPLY TO THE SAME BASIC REGULATOR BODY



JAN -5 1955

THE Newest METHOD IN PIPE CONNECTIONS

SAFETY-SEAL WELD SLEEVES
PERMA-SEAL CORROSION CONTROL SLEEVES
and LEAK CLAMPS

for steel to steel, steel to cast iron, cast iron to cast iron, leak clamps, and completely insulated sleeves for corrosion control.

WELDED SLEEVE

PERMA-SEAL SLEEVE

LEAK CLAMP

Here's a complete new system for making pipe connections of all types in the gas field.

- For steel to steel connections, these sleeves will withstand pressures up to 100 pounds before welding. No flanges, bolts, collars, or rings to obstruct in the final wrapping.
- Where welding is not practical such as cast iron to steel, a new compound that cures to a tough substance is used. It forms ***a complete seal by adhesion to the pipe.*** Where this compound is used for making connections it also makes a 100% insulated sleeve for corrosion control.
- A new leak clamp of simple construction that does not require adjustment or filling and facing of the bell. The clamp acts as mold and retainer for the new compound and thus becomes a part of the molded joint allowing for movement and vibration of pipe without disturbing the joint.

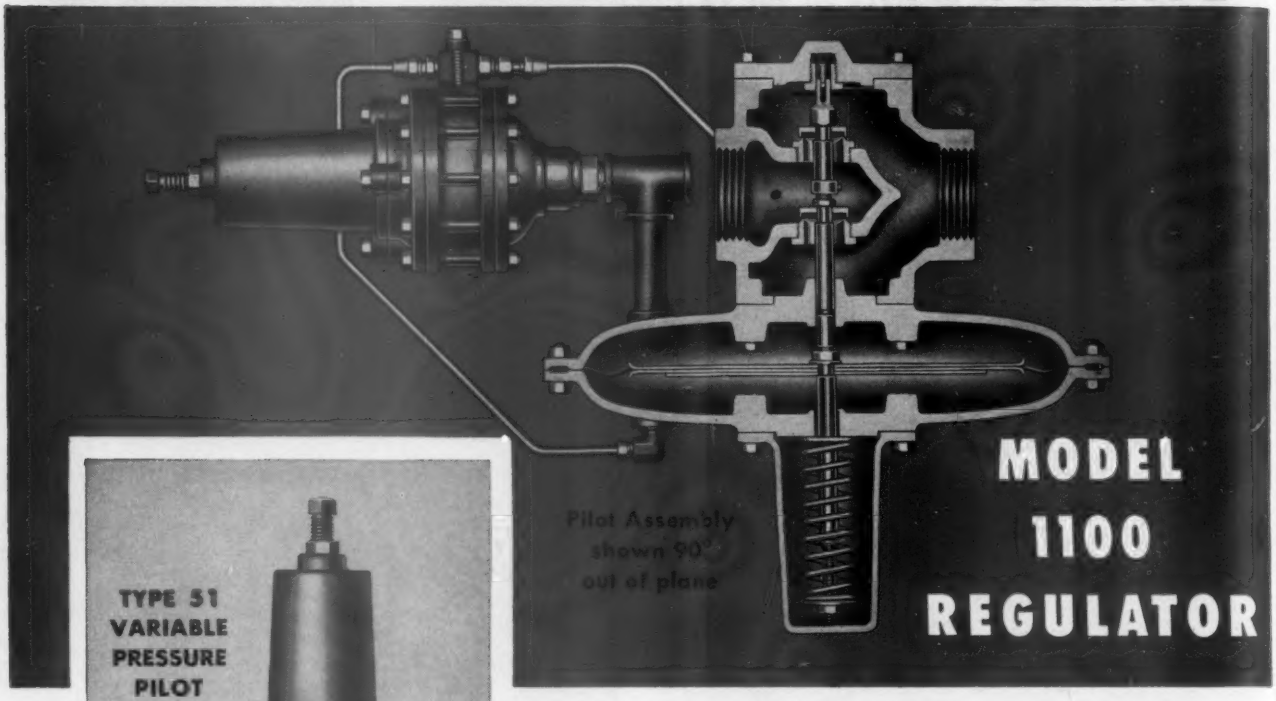
Now in actual service for over a year, these new methods will relieve many of the problems in the gas industry. WRITE FOR FURTHER INFORMATION AND PRICE LISTS.

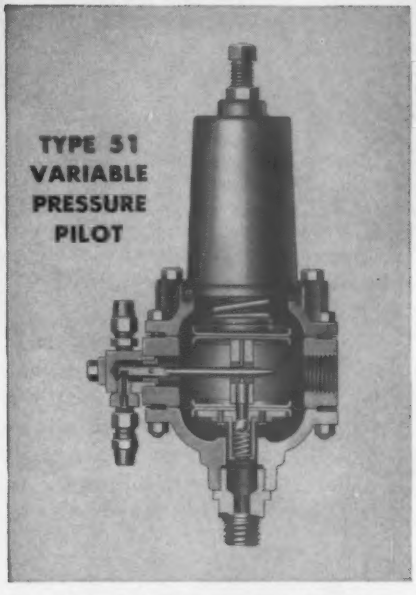
UNITED PIPE UTILITY SUPPLIERS, INC. • BOX 777, BELOIT, WISCONSIN

AMERICAN GAS JOURNAL, November, 1954. Vol. 181, No. 6. Published monthly (except October, then semi-monthly), by American Gas Journal Inc., at 73 Main Street, Brattleboro, Vt. Entered as second class matter January 24, 1950, at the post office at Brattleboro, Vt. under Act of March 3, 1879. Executive and editorial offices at 205 East 42nd St., New York 17, New York. Subscription prices, U.S. $3 per year; Canada $4; Foreign $10. Single copies 50 cents, except October 1 issue, which is not sold separately. Printed in U.S.A.

Chaplin-Fulton

MODERN—VERSATILE—ACCURATE





• the heart of the MODEL 1100 assembly, insuring precisely accurate control over the complete flow range. • Unitized construction—valve lever and orifice as a unit are removed from the outside, without disturbing balance of assembly. The likely trouble spot—the orifice—is placed outside where you can get at it quickly—no internal tubes to clog. • Twin diaphragms remove as a unit. • Internal relief unit—guards against overpressure. • Spring unit—remove three screws to change springs. • Built for service. • Used for accuracy.

You can't buy, beg, borrow or steal a more versatile pressure regulator than MODEL 1100. Nor has traditional Chaplin-Fulton ruggedness, simplicity or accuracy been forgotten in this new modern design. Size—2" only.

Wider Application —Inlet Max.—250 psi. Outlet Range—1" to 75 psi or 50 to 150 psi.

Greater Capacity —24,000 CFH at 10 psi to ounces; 114,000 at 100 psi. Body contoured for flow.

Easier Maintenance—regulator or pilot can be serviced without disturbing the other. Quickly accessible orifices in both, easily renewable.

Simpler Installation—only one connection required. No complicated pins or toggles to adjust.

You can standardize on MODEL 1100 for a wider range of your industrial, commercial or distribution installations.

ACCURATE CF MFG CO. DEPENDABLE

Chaplin-Fulton
MANUFACTURING COMPANY
Pittsburgh 25, Pennsylvania

AMERICAN Gas Journal
96TH YEAR OF PUBLICATION

VOLUME 181 NOVEMBER 1954 NUMBER 6

This month...

Two new association presidents have begun their terms in office, with the assumed-purpose of carrying on the vigorous and effective work of their immediate predecessors in the broad interests of the gas industry. So, to both F. M. Banks, president, American Gas Association, and T. T. Arden, president, Gas Appliance Manufacturers Association—a salute and a wish for a stimulating and gratifying year.

• • •

One of our more pleasant experiences in Atlantic City, during the AGA convention, was a cheery conversation with W. E. Steinwedell, chairman, The Gas Machinery Co. He reminisced about his regular visits to the GAS JOURNAL's offices in the early 1900's and said that "Old Days Recalled," a monthly feature, brings back names, faces and places with which he had close association.

• • •

Our *Gas Fundamentals* series continues to receive enthusiastic plaudits from readers who regard it as valuable for its presentation of a flow of easily-understandable information about operations, equipment, procedures and policies affecting the gas industry. The series, unique in gas industry literature, also enjoys the endorsements of gas company executives who read it themselves as refresher material and subscribe to the GAS JOURNAL so that their younger and newer employees may have a better understanding of the industry. The 45th consecutive and uniform 4-page chapter, Regulating Gas Pressure, ably-authored by Howard J. Evans, starts on page 19.

Contents

Mcf 4
Editorial: Producer Tells Utilities—What and How 13
Mutual Viewing of Problems Seen Solution to Industry Dissension 14
AGA Convention Reveals Industry Gains and Airs New Obstacles 15
Old Days Recalled: from American Gas Journal—90 Years Ago . . . 50 Years Ago . . . 25 Years Ago 18
American Gas Fundamentals: Regulating Gas Pressure ... 19
How Company's Silence Makes an Enforceable Contract —Leo T. Parker 23
First Catalytic Plant Reforming Natural Gas in Argentina —M. Fernandez Romero 26
Price Indexes of Gas, Other Fuels and Electricity 30
Fewer New Corporate Bond Offerings Head for Market— John F. Falvey 31
Federal Power Commission 32
News of the Gas Industry 33
Gas Industry Submits Statements to President's Cabinet Committee 34
Men at Work 36
Annual Awards Made at AGA Convention 37
New Equipment 41
New Bulletins 43
Gas Industry Calendar 44
Professional Directory 44
American Gas Merchandising: Matchless Ranges On-Stage in "Proof of the Pudding" Show 45
Gas Appliance Industry News 48
News of Appliance Industry 49
Men at Work 49
New Gas Appliances 50
Index to Advertisers 50

Hilding H. Carlson · Editor

Bernard W. Morris · News Editor

Charles R. Bellamy · Technical Editor

Arthur Rohman · Western Editor **John F. Falvey · Financial Editor**

AMERICAN GAS JOURNAL, established 1859, is published monthly except October, semi-monthly, by American Gas Journal, Inc., 205 East 42 St., New York 17, N. Y. ROBERT M. POE, President and Treasurer; HILDING H. CARLSON, Vice President; P. M. MALONEY, Secretary.

ADVERTISING REPRESENTATIVES: John P. McDermott, Edwin J. Volckmann, 205 E. 42 St., New York 17, MU 6-4360; Urben Farley & Co., 120 S. LaSalle St., Chicago 3, FI 6-3074; Jack O. Hodges, 479 S. Holt Ave., Los Angeles 48, BR 2-3935; Geo. F. Haines, 681 Market St., San Francisco 5, DO 2-4475.

Member Audit Bureau of Circulations and National Business Publications

Copyright, 1954, American Gas Journal, Inc., New York, N. Y.

Subscription Rates: U.S. $3.00 per year; Canada, $4.00; Foreign, $10.00. Single copies, 50 cents.
October 1 Handbook issue not sold separately.

Mcf

COAL GANG BLOCKS GAS **Defeated in try for Pennsylvania legislation to prevent underground storage of gas, coal industry has now succeeded in getting state supreme court to grant injunction against Equitable Gas Co. in development of storage area. Court ruled laws do not preclude such civil liability suits, even though Federal Power Commission and Pennsylvania Public Utility Commission had issued certificates for project.**

BITUMINOUS coal industry committee "recommends": Congressional action to free natural gas producers from Federal regulation . . . use of coal, not gas, at atomic energy plants . . . establishment of government policy requiring use of coal by manufacturers or suppliers in governmental purchases; also, borrowers of government money and companies granted certificates of rapid tax amortization . . . FPC get jurisdiction over direct sales of interstate pipeline gas to consumers . . . amend Natural Gas Act to require producing states be given first crack at gas . . . require showing of 25-year reserve in FPC certificate applications . . . regulate gas pipelines as common carriers . . . deny pipelines right to carry their own company-produced gas . . . establish new standards requiring use of natural gas only for "higher purposes." *Are they serious?*

PREDICTION, however, based upon this and other recent activities by coal groups, is that new, strong and continuing efforts will be applied in competition with gas. Look for them to be well-planned, well-executed and fully-financed. Coal industry has awakened, technologically. It had to. It was faced with possibility of leaving vast reserves of coal in the hills. Gas and oil advances heightened that. Loss of most railroad fuel business to dieselization program; much of electric generation to dumped natural gas—extremely serious, because of huge tonnages. Now, threat in use of atomic materials for electric generation and other coal jobs gives industry something else to think about.

REORGANIZATION of Federal Power Commission, contemplated on this page in July, appears to be under way with appointment of a managing director, Henry R. Domers. He will supervise staff and help modernize procedures.

PRODUCER-regulation implies work-load for FPC far beyond capacities of present staff, especially with current concept of procedures.

LEGISLATION that will nullify U.S. Supreme Court's decision in Phillips case is objective of several groups, formed and forming. One is Nationwide General Gas Committee, seeking bill similar to Kerr Bill.

ESCAPE clauses are expected to get FPC's disapproval. In contracts between natural gas producers and pipeline companies, clauses say producers can terminate contracts if gas involved comes under Federal regulation.

PRODUCTION of natural gas, free of FPC regulation, as a recommendation of new Cabinet committee on energy resources, is official hope expressed by Chairman Ernest O. Thompson, Texas Railroad Commission.

INSTALMENT credit during recent months has given retail sales upward push, Cleveland Trust Co. reports. New borrowing for instalment purchases has exceeded loan repayments since March.

MAN-HOURS, at rate of 678-million per week, involving about 17-million workers in 40-hour week, are going into manufacturing, mining and contract construction.

ATOMIC power generation in Rocky Mountain area will be studied, under Atomic Energy Commission authorization by 9-company group: Public Service Co. of Colorado; Utah Power & Light Co.; Arizona Public Service Co.; Idaho Power Co.; Phillips Petroleum Co.; Minnesota Mining & Manufacturing Co.; Ebasco Services, Inc.; Riley Stoker Co.; Fluor Corp., Ltd.

RESEARCH activities by 12,000 firms, large and small, will be subject of study for National Science Foundation, to be conducted by Bureau of Labor Statistics. American industry now depends upon research for advancement. Results of study . . . what has been done in research; how it can be improved . . . should give further impetus to even-broader work. Cooperation by all who are called on, in course of study, is urged.

SITUATION of entire gas industry—producers, pipeliners and distributors—were viewed realistically as "crisis in teamwork" by John F. Merriam in convention address to American Gas Association. Big cheer is due him for impartial presentation of problems of 3 groups.

EXPECT more on this subject in December GAS JOURNAL.

MUELLER

WORK SAFELY . . .
USE NO-BLO MACHINES!

"E-4" DRILLING MACHINE
Now with "O" ring packing!

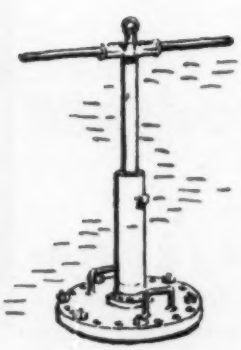
No-Blo Machines are specifically designed to be used with No-Blo Fittings. Drilling or tapping of mains and service lines, inserting plugs, valves and stems in fittings, inserting stops in mains, stopping off service lines and mains and many other operations may be performed quickly, easily and safely. No-Blo Machines and related equipment drill 1/4" holes or stop off 12" lines at 500 psi, without loss of gas!

Ask your Mueller Representative about No-Blo Machines and No-Blo Fittings and what they can do for you.

MUELLER CO.

Dependable Since 1857

Main Office & Factory Decatur, Illinois



NO-BLO

10" Natural Gas Line Safely Relocated to Make Way for New Ohio Turnpike!

The Ohio Fuel Gas Co. of Columbus recently solved a problem that is becoming increasingly common for gas companies throughout the country. Plans for the new Ohio Turnpike — a continuation of the famous Pennsylvania Turnpike — called for several crossings of a two-mile section of 10" natural gas transmission line. These crossings were considered extremely undesirable by the gas company and it was decided to relocate the line.

Mueller line stopper equipment was used to make the tie-ins because a gas flow through the by-pass at a minimum of 130 pounds pressure, had to be maintained during the entire operation.

The new 10" line was laid, stopper fittings were welded in position and the by-pass lines were completed before the stopping operation was begu Stop-off procedure was slightly different from mo jobs in that only two stopping machines were us on the four fittings. The old line was used as part the by-pass line. This caused some extra moving equipment, but permitted the job to be done wi the least number of fittings and piping. Perfect sto offs were obtained at all four fittings and all op ations were performed in perfect safety.

Ohio Fuel Gas abandoned the old line after salva ing two of the line stopper fittings and two of t Save-A-Valve Drilling Nipples used by the b passes. Despite the severe working conditions, t entire relocation was completed in less than fo days.

Mueller "C-1" Drilling Machine with air motor, drilling a 10" line stopper fitting. Rigid 8" by-pass line in foreground.

lueller H-17440 Stopping Machine in po-ion with stopper expanded for tight shut-off. ow is now diverted through by-pass line in ackground.

Old 10" line being removed prior to lowering new line in place. Note vapor rising from hot metal of cut section. H-17445 Completion Machine in foreground.

Inserting pressure equalizing completion plug using balanced pressure H-17445 Completion Machine.

eneral view of site of operations owing extreme working conditions.

MUELLER **NO-BLO** **Method**

rite direct or consult your Mueller representative full details on the No-Blo Line Stopper Unit # 4.

MUELLER CO.

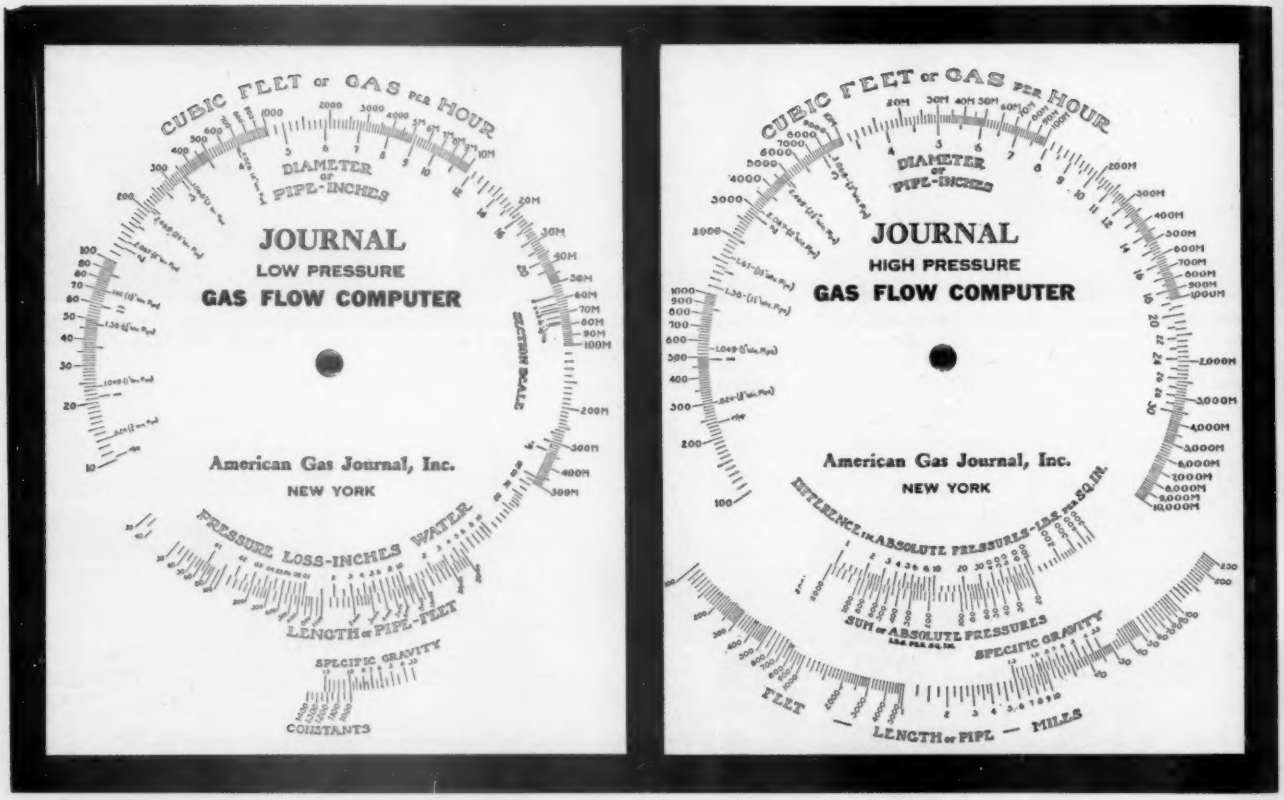
Dependable Since 1857

MAIN OFFICE & FACTORY DECATUR, ILLINOIS

AMERICAN

Gas Journal

GAS FLOW COMPUTERS



FOR LOW PRESSURES

Cubic feet of gas per hour.....10 to 500M

Pipe diameters.....¾" to 48"

Pressure loss (inches)..... .01 to 10

Specific gravities.....1.5 to .35

Constants.....1400 to 1000

Pipe length (feet).....30 to 30,000

FOR HIGH PRESSURES

Cubic feet of gas per hour.....100 to 10MM

Pipe diameters.....¾" to 30"

Difference in absolute pressure to.....500 psi.

Sum of absolute pressures.....20 to 2,000 psi.

Specific gravities.....1.5 to .35

Pipe length (feet).....100 to 5,000

Pipe length (miles).....1 to 250

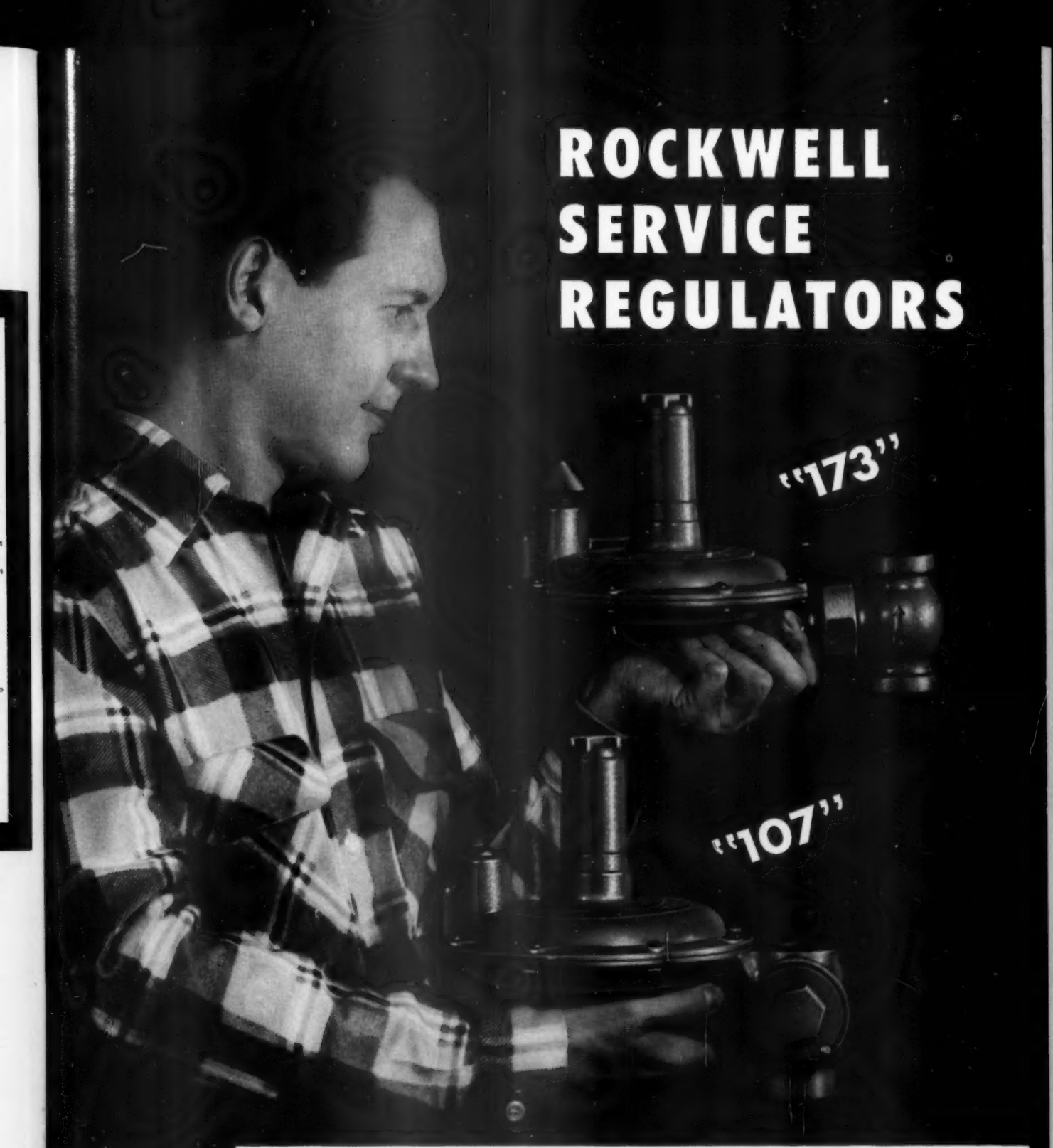
The computers are printed on heavy durable plastic, enclosed in Fabrikoid cases with complete instructions for their use.

PRICE: $5.00 EACH

PUBLISHED, COPYRIGHTED AND SOLD ONLY BY

AMERICAN Gas Journal

205 EAST 42 STREET—NEW YORK 17, NEW YORK

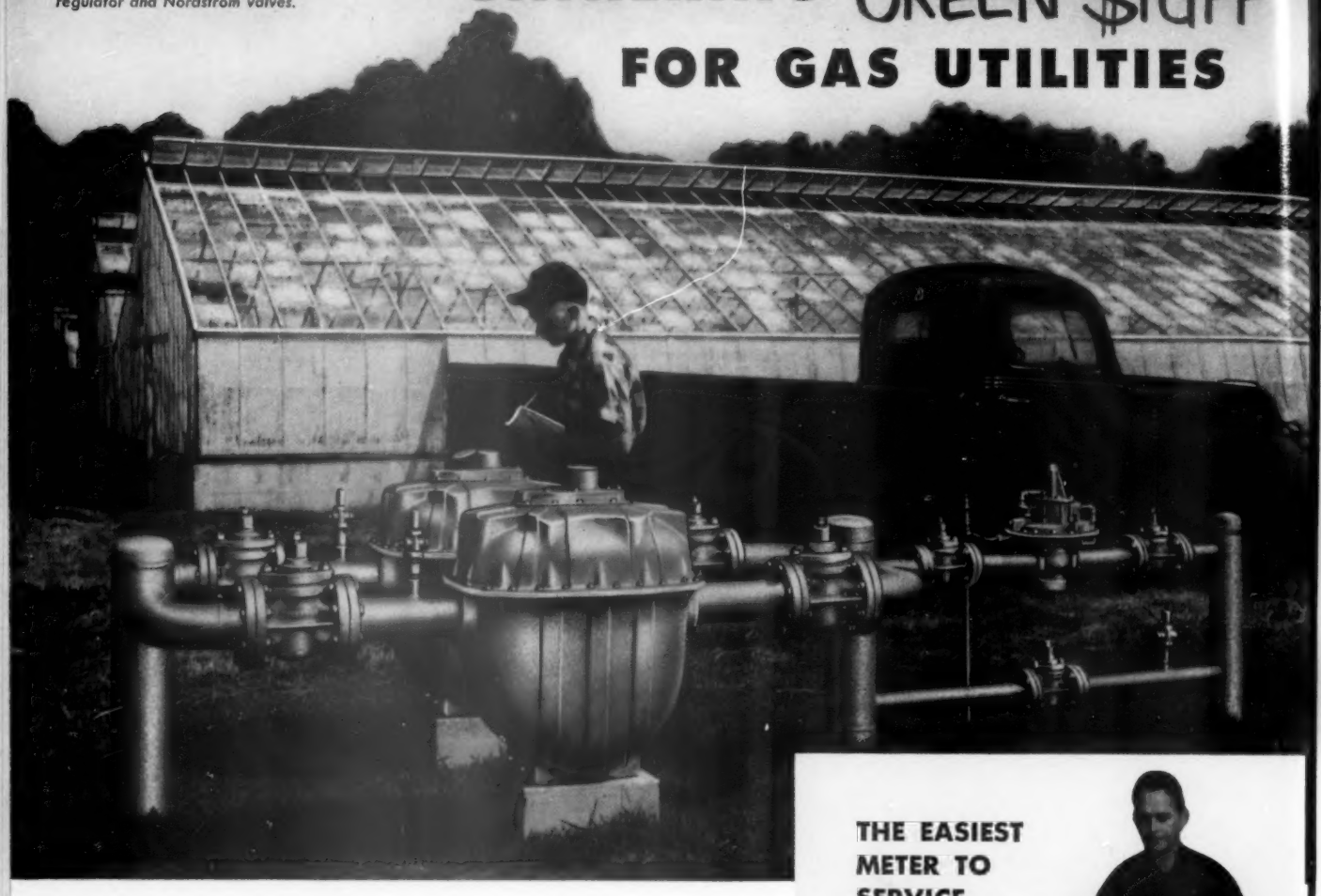


Designs To Suit The Application

You don't have to compromise on service regulator design when you buy from Rockwell. You can have either the solid body No. 107 with ejector ring boosting or the No. 173 with venturi tube boost and a universal mounting. Options in both styles include large internal relief valves and large bottom vents. No. 107 service regulators with mercury seals and dead weight safety valves are also available. Whatever your choice, all Rockwell regulators are built to give precise control for many years with minimum maintenance.

Greenhouse in Oklahoma served by two No. 4 Rockwell meters through lines controlled by Rockwell "1001" regulator and Nordstrom valves.

GATHERING GREEN $TUFF FOR GAS UTILITIES



Rockwell Metering Does It!

Sustained accuracy and engineered durability are qualities that utilities expect and get from Rockwell large capacity metering installations. But when you buy Rockwell meters you always gain the *plus value* of service economies. That's made possible by the bowl type body with its removable and interchangeable unit valve plate mechanism. This exclusive construction brings big savings to you who use big meters. For details write for Bulletin No. 1085.

ROCKWELL MANUFACTURING CO.

PITTSBURGH 8, PA. Atlanta Boston Chicago Dallas Houston Kansas City, Mo. Los Angeles New York Philadelphia Pittsburgh San Francisco Seattle Tulsa

In Canada: Peacock Brothers Limited

THE EASIEST METER TO SERVICE

The complete measuring mechanism is attached to a valve plate casting that can be removed as a unit in field or shop. It may be replaced intact in the same bowl type body with either a new or rebuilt valve plate assembly that has been previously calibrated for accuracy.

YOU CAN RELY ROCKWELL ON ROCKWELL

There's a ROCKWELL METER and REGULATOR for every use

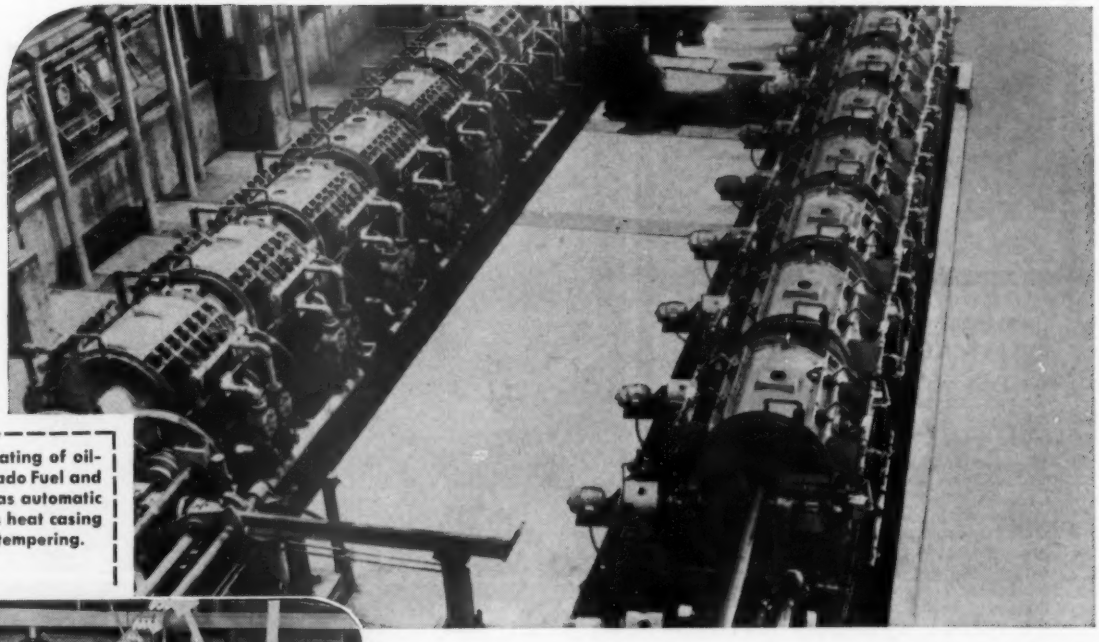
METERS

ALUMINUM CAST IRON PRESSED STEEL

REGULATORS

INDUSTRIAL SERVICE "1001" BALANCED VA

GAS CAN DO A BETTER JOB IN EVERY INDUSTRY



Continuous heat treating of oil-well casing at Colorado Fuel and Iron Company. Selas automatic Gradiation furnaces heat casing for hardening and tempering.

Line of Selas soldering furnaces in gas meter repair shop of Public Service Electric and Gas Company.

SELAS *Gradiation Equipment*

Speeds Heating...Cuts Costs ...Improves Product Quality

● Whether it is a continuous heat treating furnace in a large steel mill, producing pipe, or a small soldering furnace used for meter repair, gas can be made *the* important source of heat for precision processing, speedier production and greater economy.

Whatever the heat processing requirement—of fluids, metals, textiles or other products—the use of Selas Gradiation equipment can improve the utilization of gas as *the one fuel* which should be accepted as industry's basic and consistent source of reliable heat for process.

SELAS

SELAS

CORPORATION OF AMERICA • PHILADELPHIA 34, PA.

Heat Processing Engineers for Industry • Development • Design • Manufacture

TWO GREAT NAMES...

HOTEL COMMODORE

42nd STREET AT LEXINGTON AVENUE, NEW YORK 17, N. Y.

Equipped with **GARLAND...**

THE GREATEST NAME IN COMMERCIAL COOKING!

From coast to coast . . . Garland is FIRST CHOICE over all others!

What are the reasons for Garland's clear-cut sales superiority?

Naturally, these reasons vary according to the job!

Short-order cooks like its speedy ways and economy! Popular restaurants like Garland *flexibility-with-quality* performance. Hotels like its rugged durability and efficiency, too!

But whatever the job . . . *Garland does it best!* That's why Garland equipment is used in more leading restaurants, hotels, clubs, schools and institutions than any other make! Phone, wire or write for full details!

The battery formation illustrated includes: Spectro-Heat Hot Top; Open Top; Unitherm Fry Top; Deep Fat Fryer; and Side Fired Broiler. Units available in standard black-Japan or Stainless Steel finishes.

Have you joined the 45-29 Club?

GARLAND

DM PRODUCTS

Heavy Duty Ranges • Restaurant Ranges • Broiler-Roasters • Deep Fat Fryers
Broiler-Griddles • Roasting Ovens • Griddles • Counter Griddles • Dinette Ranges

PRODUCTS OF DETROIT-MICHIGAN STOVE CO., DETROIT 31, MICHIGAN
IN CANADA: GARLAND-BLODGETT LTD.—1272 Castlefield Ave., Toronto

Editorial:

Producer Tells Utilities—What and How

MR. K. S. Adams, chairman, Phillips Petroleum Co., believes that the utilities should get right into the fight to help unyoke the natural gas producers of Federal regulation. Mr. Adams told the utilities that during his address at American Gas Association's recent convention.

"This is your fight. I sincerely hope you will fight vigorously to assure a future gas supply for your customers and the continued growth of your industry." So spoke Mr. Adams, in his closing words.

Mr. Adams was really in a TELLING mood, throughout his address.

These were some of his words on the vetoed Kerr Bill: *"Whatever the reason, the failure to tell your consumers the facts killed that opportunity to protect your future gas supply. . . . It is time you completely reverse your approach. . . . you have arbitrarily opposed the transmission companies' payment of any increased prices to producers which were essential to protect your future gas supply. . . . you have indirectly been fighting every producer who supplies you with your life blood."*

While Mr. Adams gave voice and vigor to his expressions of the gas producers' position—Mr. Adams' position, too—he was also displaying an abysmal lack of information about gas utilities—their accomplishments and their experiences in handling local problems in the communities they serve.

This gas producer did not recognize the historical fact that most gas utilities, for 100 years or more before the high-pressure advent of natural gas lines, were the able masters of their own destinies—sink or swim.

This gas producer did not recognize the historical fact that manufactured gas utilities, through their OWN efforts, maintained a highly-commendable industry record of service to customers—their best-possible public relations effort.

This gas producer CERTAINLY did not refer to the fact that he and the other producers have not extended a friendly industry-hand, up through the pipelines, to the utilities—that he and the other producers have not indicated that they consider themselves part of the gas industry. Nor did he indicate they intended to do either one.

But—this gas producer DID try to shiver the gas utilities with such "incidental" comments as: *"Incidentally . . . a group of 80 Oklahoma business men arrive in New York City. . . . Their specific aim is to influence new manufacturing ventures to locate in Oklahoma. One of their strongest sales points this year is the undedicated underground supplies of natural gas . . . which will be sold for use only within the state . . ."* and, another, *"He* [Earl H. Eacker] *says . . . $4-billions will be spent . . . 1954 through 1957 to help meet . . . demand for gas services. This prediction may have been correct before the Supreme Court decision* [in the Phillips case], *but in my opinion it is now due for reappraisal."*

Gas producer Adams could not be accused, in a reasonable consideration, of threatening the utilities during his convention address, but his words and his tones made more than one utility executive express the opinion that he came close to it.

There is no reason why natural gas producers should even approach such a point in addressing themselves to gas utilities.

There are other and more pertinent reasons why they should take another and more constructive step—one which every thoughtful utility executive would rise to cheer—and that is to give substantial, continued and convincing evidence that they consider themselves PART of the gas industry. To do that, they must come down and keep themselves aware of the realistically-competitive world in which the utilities must sell gas, the same world in which the appliance and equipment manufacturers must sell. Then, being aware of it, they should be able to understand that the interests of their pipeline gas are at stake if they price that gas ever-upward so that utilities lose that competitive advantage. They also should give some kind of evidence that they know the position in which utilities in many states are placed, repeatedly, with heavy dollar-loss, between the effective date of an increased pipeline gas rate and state commission approval for a non-retroactive utility rate increase.

Added regulation is hardly an objective of any temperate and well-informed utility executive—even for producers. It is not our purpose, here and now, to view either the pros or cons of that matter.

However, we reconsider the title of Mr. Adams' address: Will Distributing Companies Sit Idly By While Federal Regulation Sounds the Death Knell to Their Natural Gas Supply?—and reconsider the character of his expression of the producers' viewpoint of utilities, —and reconsider his closing pronouncement: "This is your fight"—and then we can't avoid the conclusion that it just doesn't figure out to that point IN QUITE THAT MANNER.

Mutual Viewing of Problems Seen Solution to Industry Dissension

Merriam calls for early teamwork by producers-pipeliners-distributors

THE consumer's dominant position as the key to the future, for the gas industry, was stressed at the recent American Gas Association convention, when John F. Merriam said, "He, the consumer, can get along without us or our natural gas team. We cannot get along without him.

"If he does not like the price," Mr. Merriam noted, "he can use something else. He can cook with electricity, or propane or otherwise. He can heat water with electricity, oil, coal or other fuels. He can use electricity for refrigeration. He can heat his house with oil, coal, heat pumps, solar energy, electricity or even, perhaps, with atomic energy."

At that point, Mr. Merriam, addressing AGA as president of Independent Natural Gas Association of America, was developing his contention that the "crisis in teamwork" among the major segments of the gas industry "is an intolerable situation—it cannot continue—it must be stopped—it can be stopped."

The crisis, he said, is the threat to the supplies of natural gas resulting from the interpretation of the Natural Gas Act by the U. S. Supreme Court in the Phillips case. Prior to the decision, Federal Power Commission and the industry had applied a literal interpretation to the provisions which said the Act exempted production or gathering of natural gas. Following the decision, FPC acted accordingly and issued rules and regulations covering production and gathering, including the necessity of obtaining certificates of public convenience and necessity for sales of gas destined for pipeline transmission in interstate commerce.

"The onus of failing [in the teamwork crisis] will not fall on a single segment of the natural gas industry," Mr. Merriam declared. "It will fall on the whole industry. The consumer and the public will not distinguish between segments. No matter which part of the industry you are in, you will be blamed, and properly so, by the consumer and public, for a failure in teamwork that hurts the public interest. We, in the industry, can point our fingers at each other in a vicious circle, but while that may give us some satisfaction it does not present a pretty picture to the consumer or the public—and can never satisfy them."

The viewpoints and positions of distributing utilities, pipeline companies and producers were presented by Mr. Merriam to AGA as the basis for finding a solution to the crisis as an industry team.

John F. Merriam, president, Independent Natural Gas Association of America, and president, Northern Natural Gas Company, addressed a general session of the recent American Gas Association convention with "The Natural Gas Team—Distributor, Pipeliner, Producer" as his title. Mr. Merriam's broad view—that all 3 segments of the industry have individual problems and that they can be resolved only through enlightened approaches by all the parts of the industry—was well received by his audience. An abridged version of his address is presented on these pages.

John F. Merriam

Utilities' current position

"Thousands of gas distributors have become entirely dependent upon the supply of natural gas in the last 10 years," he emphasized. "Those of you who previously had distributed manufactured gas were individual performers and not members of a team. You ran your own show. You bought coal or oil where and from whom you pleased. If you didn't like one product or the people from whom you bought your raw material, you could change at any time because of the nature of the business.

"The distributors of manufactured gas could and did live in splendid isolation. This isolation had its obvious advantages of independence. When such independence became too costly, the manufactured gas distributor surrendered it and turned to low cost natural gas in order to stay alive and fulfill the distributor's franchise obligation to serve the public interest.

"When the gas distributors voluntarily elected to purchase and distribute natural gas, you knowingly or unknowingly, automatically became a member of the natural gas team. The advantages of the almost automatic transmission of natural gas from the wellhead to the consumer is one of the main advantages of natural gas, both economically and convenience-wise over other fuels. At the same time, the billions of dollars necessarily invested by pipeliners to serve the market requirements of the distributor preclude any ready shifting by the distributor from one supplier to another."

The distributor of natural gas, Mr. Merriam continued, as a member of the team, is in just as much trouble for failure to provide adequate service to consumers as a result of poor service by the pipeliner or producer "as if you yourself, in your own community, had caused the poor service."

A failure of supply by the pipeline company, he said, or a failure by the producer, is a failure to supply to the distributor, the consumers and the public.

The distributing utilities "are inextricably a part of the whole natural gas team," Mr. Merriam stressed.

"If, by your lack of understanding of the producer's or the pipeliner's problems, you unwittingly and unintentionally contribute to the adoption of public policies that hamstring any other member of the team, then anything that boomerangs against the public interest will most surely be held against you by your public.

Avoid one-sided solution

"I urge you to be sure that you understand fully the problems of other members of the team and, more particularly, the problems of the producer.

"Be sure that the solution reached is not for the sole benefit of one member of the team. Don't be misled that any such one-sided solution will be in the long-term public benefit."

The producer's position was reviewed by Mr. Merriam, noting that his stake in the industry "has skyrocketed in the last 10 years, in obvious direct proportion to the increase in markets to absorb the gas supply available." This, he said, reversed the previous supply-and-demand situation in which supply far exceeded demand. Increased field prices, following increased demand, raised natural gas from an economic value of near-waste to one which more nearly represented its true value as a fuel in comparisons with oil and other fuels.

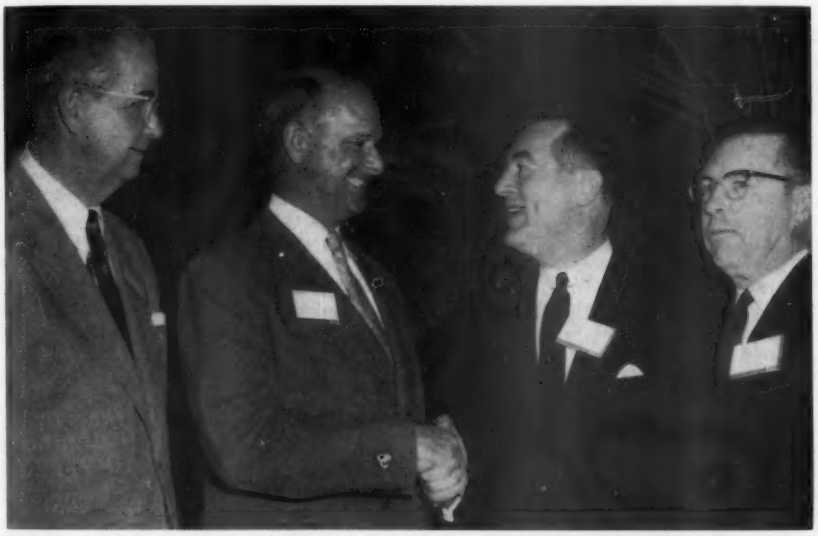
"There can be no doubt that the new higher prices for natural gas resulted in a new friendlier look at natural gas on the part of oil and gas producers," Mr. Merriam continued. "Natural gas that had for-

Turn to page 42—MERRIAM

AGA Convention Reveals Industry Problems and Airs New Obstacles

THE 36th annual convention of American Gas Association, in Atlantic City, N. J., last month, was noteworthy for the scope of the views expressed, the reports of accomplishments in industry action, the technologies and appliance developments revealed, and the overall evidence of confidence. In a balanced consideration, the delegates seemed to take with them a favorable approach to the future—which is not to say they were inclined, in a realistic attitude, to lose sight of some current formidable obstacles.

Some impression of the content of the convention will be obtained from the abridged versions of selected addresses, as they appear on these pages.



Left to right: C. H. Zachry, Southern Union Gas Co., 2nd vice president; F. M. Banks, Southern California Gas Co., president; E. H. Eacker, Boston Consolidated Gas Co., outgoing president; Dean H. Mitchell, Northern Indiana Public Service Co., 1st vice president.

American Gas Association

OFFICERS—1954-1955

President—F. M. Banks, president and general manager, Southern California Gas Co.

First vice president—Dean H. Mitchell, president, Northern Indiana Public Service Co.

Second vice president—C. H. Zachry, president, Southern Union Gas Co.

Treasurer—Vincent T. Miles, treasurer, Long Island Lighting Co.

DIRECTORS ELECTED FOR 2 YEAR TERM

Ernest R. Acker, president, Central Hudson Gas & Electric Corp.

Dudley B. W. Brown, president, Milwaukee Gas Light Co.

F. D. Campbell, president, New England Gas & Electric Association.

Stuart Cooper, president, Delaware Power & Light Co.

N. Henry Gellert, president, Seattle Gas Co.

Paul Kayser, president, El Paso Natural Gas Co.

Donald C. Luce, president, Public Service Electric & Gas Co. (N. J.)

H. N. Mallon, president, Dresser Industries, Inc.

James F. Oates, Jr., chairman, The Peoples Gas Light & Coke Co.

C. P. Rather, president, Southern Natural Gas Co.

Henry B. Sargent, president and general manager, Arizona Public Service Co.

E. Carl Sorby, vice president, Geo. D. Roper Corp.

W. T. Stevenson, president, Texas Gas Transmission Corp.

E. H. Tollefson, president, Hope Natural Gas Co.

George E. Whitwell, vice president in charge of sales, Philadelphia Electric Co.

SECTION CHAIRMEN

Accounting: A. T. Gardner, vice president and secretary, Delaware Power & Light Co., chairman; E. R. Eberle, assistant to general commercial manager, Public Service Electric & Gas Co. (N. J.), vice chairman.

General Management: Larry Shomaker, vice president, Northern Natural Gas Co., chairman; John H. Carson, vice president, The East Ohio Gas Co., vice chairman.

Industrial and Commercial: Ray Trowbridge, commercial and industrial sales manager, Seattle Gas Co., chairman; Lawrence E. Biemiller, manager, industrial fuel department, Consolidated Gas, Electric Light & Power Co. of Baltimore, vice chairman.

Operating: Walter H. Davidson, superintendent of operations, Transcontinental Gas Pipe Line Corp., chairman; J. H. Collins, Sr., general superintendent, gas department, New Orleans Public Service, Inc., vice chairman.

Residential: Walter H. Kurdelski, sales manager, Michigan Consolidated Gas Co., chairman; B. H. Wittmann, assistant to vice president in charge of sales, The Peoples Gas Light & Coke Co., vice chairman.

Glancing Back—But Really Looking Forward

E. H. EACKER, outgoing-president, American Gas Association, and president, Boston Consolidated Gas Co.

THE groundswell of enthusiasm and awakening is probably the most striking development of 1954. I have sensed it. I have seen it. The gas industry is on the march!

"The turn of events has indicated more clearly than ever that every segment of our industry, from producer to final distributor, from manufacturer to appliance dealer needs to know more clearly the fundamental problems each is coping with and how necessary it is that all work toward a common goal—the advancement of the gas industry. Therein lies the success of each of us.

"The association is striving to carry out the primary purpose set forth in its constitution and by-laws: 'To promote and develop the gas industry and to coordinate its activities to the end that it may serve to the fullest extent the best interests of the public.'

"The vehicles we are using to promote the sound development of the gas industry are our national and regional associations. . . . We must develop our own industry-wide plans for promotion, advertising, public relations and research.

"Events of the recent past point more conclusively than ever to the need for close coordination of the activities of our national and regional associations.

"Although most of you dwell and work far from New England, what takes place there can and probably will affect you sooner or later . . . unless we in the gas industry in New England are on the ball, harm may be done to the industry in Texas or California or vice-versa.

"Spurred by the Action Program for gas industry development, many company executives are beginning to re-examine established policies and techniques. Their promotional, advertising and research sights are being raised. Advanced marketing techniques are coming into play in community after community. The public relations programs of Independent Natural Gas Association, Gas Appliance Manufacturers Association, and the activities of our own association and the National Council for LP-Gas Promotion are providing a foundation for an industry-wide effort to enlist public understanding and support.

"The activities of our AGA Laboratories have reached a new all-time peak.

"Our accident prevention program has been revitalized and expanded and our public safety record has been substantially enhanced.

"The realization that we probably were being lulled to sleep resulted in the Gas Industry Development Program . . . to meet competitive inroads in our domestic market.

"While both electric and gas range sales have climbed in the past 15 years, the gain for electric ranges has been about 288% to current annual sales of about 1.3 million units. Against this, gas range sales in 15 years gained some 45% to total about 2.2 million units annually. More gas water heaters are being sold than electric, but the fifteen year total gain for electric is 660% versus 326% for gas.

"We have come a long way in meeting this competitive threat to our markets but we still have a big job ahead. Our greatest job today is to convince the housewife that gas and modern gas appliances can make her life easier. It is as simple as that.

"Our customers do not buy our product because it appeals to any of the 5 human senses. They buy it for the service it renders to them. . . .

Sheldon Coleman, left, retiring president of Gas Appliance Manufacturers Association, and president, The Coleman Company, hands gavel to new GAMA president, T. T. Arden, executive vice president, Robertshaw Fulton Controls Company, at the recent meeting of the GAMA board.

"Today, we have our promotion, advertising and research (PAR) program, which was first established in 1945. In its nine years of existence member companies have contributed approximately $15,600,000 in support. I shudder to think where our industry would be today without the PAR plan. Its basic function has been to undertake for gas utilities and pipelines those promotional advertising and research activities that can be done only, or done best, at the national level. You should know that for the expenditure of $770,000 of PAR funds last year we encouraged manufacturers to spend $1,764,000 of their own advertising funds and obtained substantial magazine editorial support. Mere volume of national advertising should not be, and is not, our goal.

"The association's new 'year ahead' planning booklet on promotional and advertising campaigns for 1955 is the most complete work of its kind. This carefully prepared brochure gives local gas companies complete details on PAR national advertising and promotional campaigns well in advance of the actual campaign dates. Using this unified approach, we are achieving greater coordination of gas industry campaigns and greater customer impact at the local level where all sales are made.

"Our statisticians tell us that if consumer purchasing power in the United States holds at the present level, there is a potential market for 59 million more gas ranges, water heaters and heating units between now and 1958. We can achieve this huge goal by planning, by improving techniques and practices; and by hard work. These are the basic principles put forward in the Gas Industry Development Plan.

"But our hope of forward progress lies not in selling alone. To sell efficiently we must have a vastly superior product. In the range field, the AGA Cleveland Laboratories' demonstration of new research principles in January pointed the way to such a product.

"Our research efforts are not confined to appliance development. We are seeking, and finding, new methods of producing gas at lower costs. Looking into the far distant future, we are developing new processes for manufacturing substitute gases for natural gas. Some highly significant findings have come from research projects at the Institute of Gas Technology and the AGA Laboratories.

"The gas industry has come a long way in employee-safety since the '20's but, compared with other industries, we still have a long way to go. Last year the gas industry lost more than 300,000 man-days of work due to employee-accidents. This loss is equivalent to shutting down the entire gas industry for almost 2 working days! In wages alone, we lost $3½-million—more than the gas utility industry contributes each year to all AGA activities, including the PAR program.

"Supplies of natural gas continue to increase at a rate greater than the ever-growing production. It would appear that there are ample supplies of natural gas for many years ahead, provided the climate for its production is such that it will be made available for ultimate consumption.

"One of the most fertile fields today is the gas air-conditioning field. Its importance to pipeline companies and distributing companies for the future and its possibilities are great. We should step up our research on this.

"I urge you to press the attack ever harder in your own communities; to take the public into your confidence and explain your plans and problems; to have confidence in your services and products to the utmost."

The Gas Industry In Action

J. THEODORE WOLFE, executive vice president, Consolidated Gas Electric Light and Power Company of Baltimore

THE industry as a whole is alive to the need for a sparkling offense. The action program for gas industry development is fundamentally an offensive program. It recognizes the potency of the opposition's weapons. It expresses confidence in the basic strength of its own arsenal but, at the same time, faces up realistically to the need for improvement in many of its weapons and in the vigor and skill with which they are employed. To say it another way, and without resort to figures of speech, the action program seeks an upgrading—

J. Theodore Wolfe

"First, in the quality of gas appliances available to the consuming public;

"Second, in the amount of time, money, effort and skill devoted by all elements of the industry to the sale and promotion of those appliances; and

"Third, in the dependability of the service offered by gas utility companies to the users of gas appliances and equipment.

"One area in which the need for action is clear is the cooking load. It is not a

Gas Appliance Manufacturers Association

OFFICERS—1954-1955

President—T. T. Arden, executive vice president, Robertshaw-Fulton Controls Co., Grayson Controls div.

First vice president—W. F. Rockwell, Jr., president, Rockwell Manufacturing Co.

Second vice president—A. B. Cameron, president, Ruud Manufacturing Co.

Treasurer—Lyle C. Harvey, president, Affiliated Gas Equipment, Inc.

Secretary—H. Leigh Whitelaw, managing director, GAMA

DIVISION AND GROUP CHAIRMEN

Automatic controls—Frank H. Post, Robertshaw-Fulton Controls Co.

Direct heating—R. H. Norris, Dearborn Stove Co.

Unit heater—David R. Webster, Reznor Manufacturing Co.

Domestic range—E. Carl Sorby, Geo. D. Roper Corp.

Appliance regulator—Frank Kern, Jr., Maxitrol Co.

Boiler—N. E. Westphal, Weil-McLain Co.

Clothes dryer—Norman Millard, Bendix Home Appl. div., AVCO Mfg. Corp.

Conversion burner—Edward P. Hayes, The C. A. Olsen Mfg. Co.

Engine compressor—Austin C. Ross, Worthington Corp.

Furnace—G. W. Denges, Williamson Heater Co.

Incinerator—Harry Martens, Calcinator Corp.

Meter and regulator—G. T. Bowman, Rockwell Manufacturing Co.

Refrigerator—Louis Ruthenburg, Servel, Inc.

Valve—Fred W. Schmidt, Roberts Brass Mfg. Co.

Wall and Floor Furnace—Ralph E. Solomon, Samuel Stamping & Enameling Co.

Water heater—H. B. Carbon, Bastian-Morley Co., Inc.

Hotel, restaurant and commercial—Wendell M. Smock, Vulcan-Hart Mfg. Co.

Industrial—J. H. Sands, Eclipse Fuel Engineering Co.

Relief valve—E. F. Kurtz, Spencer Thermostat div., Metals & Controls Corp.

major factor in the industry's total revenues. But it is a good, year-round base load. And a gas range in the kitchen is a symbol of the householder's acceptance of the service which we sell. Remove that symbol and I cannot help but feel that the gas industry will lose more than just the dollars represented by the cooking load.

"Yet, here is a weak spot in our armor. It is a matter of cold statistics that, whereas gas ranges outsold electric by 15 to 1 just a few years prior to World War II, last year the ratio was less than 2 to 1.

"Another area where action is clearly called for: the field of air conditioning. Here is a potential bonanza, or perhaps a pitfall. The force of our action may determine which. The past ten years have witnessed a tremendous growth in the gas heating load. We want this load and we need it, not alone for the revenue it brings in directly but also because it carries with it water heating and other uses of gas. But there is that bugaboo of load factor which must be rooted out and dealt with if we are to protect the long term economic soundness of our business. All of us doubtless have struggled and are struggling with the problem. Off-peak industrial sales have furnished at least a temporary answer to some companies, but are not feasible for others because of limitations in their gas supply contracts. 'Peak shaving' with manufacturing or storage facilities has helped tremendously and will surely become an increasingly important measure. But what better answer to the load factor of space heating could there possibly be than space cooling with gas?

"Just as this great industry has been prone to sell the cheapness of its cooking appliance, so in all too many instances has it been selling the cheapness of industrial gas. The drastic change in economic conditions brought about by post-war inflation, coupled with the inflexibility of regulatory policies, has created in some sections of the country an anomalous situation—gas, historically and intrinsically a premium fuel, is priced below the cost of competitive fuels. This may be all to the good for those who are buying nothing more than a quantity of British thermal units, but there is danger in such a situation. It is the danger that not only regulatory bodies but our industry itself may forget the true value of the service it sells and its obligation to make that service reliable. I am not speaking against the off-peak or interruptible sales which are a vital factor in the economics of many utility companies. I am speaking against any tendency to regard all industrial sales as being interruptible almost at will.

"Speaking from the viewpoint of a company which has sold substantial quantities of firm industrial gas at premium prices reflecting its value as a processing fuel, speaking on behalf of the men in our industry have made a career of selling gas as a premium fuel, and speaking on behalf of the manufacturers of gas equipment who must compete with equipment using fuels which are not interruptible in their supply, I urge upon this great industry the wholehearted endorsement of an additional point recently proposed by the Industrial and Commercial Section as an amendment to the action program for gas industry development. It is: 'Each gas utility company is urged to provide firm industrial gas within the limits of the system's capacity for those operations which cannot tolerate supply interruptions or curtailments.'

"Ten gas utility companies, widely scattered across the country, in selected cities of moderate size, have been engaged for the past year in efforts to demonstrate the effectiveness of action. They have surveyed the markets in these 10 cities. They have pulled all the stops in setting up merchandising and dealer promotional programs. With varying degrees of participation, they have drawn appliance manufacturers into these programs. And they are proving that aggressive action, based on careful market analysis and buttressed by adequate financial and moral support, does get results. In one of these cities, for example, dollar sales of gas appliances per residential meter in the first 4 months of 1954 increased 41% over 1953. Three other cities served by the same company and facing the same general economic and competitive conditions showed losses from 22% to 37%. We know that appliance sales generally in the early part of 1954 were below the previous year. In its demonstration city, this company has proven, to its own satisfaction and to all who are interested, that action, in capital letters, pays off."

Who's On The Defensive?

SHELDON COLEMAN, outgoing-president, Gas Appliance Manufacturers Association, and president, The Coleman Co., Inc.

IT is one thing to get a plan—it is something else again to execute that plan properly. Experience in the 10 demonstration cities has given us the answer as to how best to execute our action program. We can now tell both utilities and manufacturers exactly what is wrong and, what is more important, we now know for the first time what to do about it and how to go about doing it.

"The first general weakness was with the utility sales department personnel. On the whole, the sales personnel in the utilities was poorly compensated and, therefore, unhappy, or were self-satisfied, waiting out their retirement time. Really dynamic sales personnel was the exception rather than the rule in utility sales departments. The obvious remedy for this situation is better compensation for utility salesmen—an incentive plan of pay that rewards for performance—and dynamic sales leadership that inspires salesmen to do their best work.

"The second weakness had to do with gas utilities trying to arrive at a decision to merchandise or not to merchandise. A clean-cut decision to merchandise or a clean-cut decision not to merchandise was preferable to an uncertain and vacillating policy in regard to this difficult question.

"The third weakness in utilities, and this is almost a part of No. 2, was utility indecision—trying to decide whether to enlarge their own sales force or push dealer cooperative plans harder, or to do both. The important thing here again was to come to a decision and then actually do something to push the sale of gas appliances harder.

"Weakness No. 4—Many utilities still hold exclusive franchises despite a specific recommendation to the contrary in the AGA action program. The answer to that is simple—do away with exclusive franchises.

"Weakness No. 5—There appears to be little evidence of well-conceived budgeting

Continued on page 47—CONVENTION

Sales Highspot of AGA Convention

BLUE FLAME LUNCHEON, the closing event at the AGA convention, was pitched as team-up—land-the-load and gave the luncheers a convincingly dramatic send-off for action in their home-towns during the next 12 months. Shown above, at the head table, l-to-r: W. M. Jacobs, Southern California Gas Co.; Robert H. Lowe, Manufacturers Light & Heat Co.; E. Carl Sorby, Geo. D. Roper Corp.; Earl H. Eacker, Boston Consolidated Gas Co. and outgoing-president of AGA; L. L. Baxter, Arkansas Western Gas Co.; E. J. Boothby, Washington Gas Light Co.

Spirit was not lacking during the luncheon program. Mr. Baxter came up with chapter-and-verse on his view of the potentials for selling gas appliances in his area. Mr. Jacobs gave a report of program and effectiveness in his company's tie to the action demonstration plan. But, with no disparaging implications for those gentlemen and Mr. Eacker, the star was E. Carl Sorby. He revealed gas range developments, with operating ranges on the stage, in a manner that would have been creditable in the performance of an able and experienced theatrical luminary. For the record, his revelations during the luncheon are not yet available for public information, either in word or picture.

When it becomes possible to promote the most recent gas range developments, the gas industry will have at hand a definitely new and powerful tool for favorable consumer attraction.—HHC

Old Days Recalled... from AMERICAN Gas Journal

ESTABLISHED 1859

90 YEARS AGO

November 1864

EXPLOSION IN BALTIMORE. *A portion of the machinery of the Baltimore city gas works exploded about one week since. The building in which the explosion took place was torn to atoms—doors, windows, shutters, piles of brick, rubbish, tools, machinery, etc., being thrown and strewn in every direction. What remained of the building was almost completely destroyed by fire, caused by the burning gas. The loss is from $30,000 to $40,000, which the company lose themselves, being their own insurers.*

NOVEMBER 1864

NEW GAS-LIGHTING APPARATUS. *Mr. T. C. Eddy and Mr. M. Burdon, Durham, England, have brought out an apparatus for lighting gas, intended to obviate the necessity of its being done by hand. It is called the "Electro-Magnetic gas-lighting apparatus." The invention may be applied to any description of gas lamp without their requiring alteration. The apparatus is about three times the size of a lady's thimble, and very much like an ordinary gas-burner. The principles upon which it is based are stated as follows: An ordinary telegraph wire communicating with the negative pole of a galvanic battery is connected with the apparatus in succession, according to the number of lights required, and the extremity of the wire communicates with the earth, or is conducted back to the battery, and attached to the positive pole, when the circuit is complete. To light and extinguish the lights, it is only requisite to connect or disconnect one of the poles of the battery.*

NOVEMBER 1864

GAS IN EGYPT. *On the 23rd of September the city of Alexandria was lighted for the first time by gas, the works having been erected by a French company. The lamplighter is nightly followed in his rounds by a crowd of wondering Arabs, who insist that the marvelous blaze following the touch of his torch must be provoked by the will of a genie, or "djinn." Heretofore a municipal regulation has required everybody going abroad after nightfall to carry his own lantern, but this is no longer necessary.*

50 YEARS AGO

November 1904

BOSTON BOARD OF ALDERMEN have petitioned the Board of Gas and Electric Light Commissioners to determine whether it would not be for the best interests of the public that the Edison Illuminating Company of Boston be ordered to reduce its selling rates. The Company does charge about all it could reasonably expect to collect.

NOVEMBER 1904

NATIONAL GAS AND CONSTRUCTION COMPANY, Camden, N. J., has announced a cut in its capital stock. It was $1,000,000; it is now $2,000. Quite a slash.

NOVEMBER 1904

THE UTICA, N. Y., Gas Engine Works seems to be troubled from the attentions of the sheriff's office.

NOVEMBER 1904

RESIDENTS OF BELDING, MICH., are said to be clamoring for a gas plant.

NOVEMBER 1904

MR. ARTHUR R. CRUSE, President of the Cruse-Kemper Company, Philadelphia, writing under date of the 17th inst., says that in addition to some very gratifying orders recently booked for structural iron, the company was favored with the following contracts in the gas works line: a 100,000 cubic foot telescopic gasholder; a 30,000 cubic foot single section gasholder; a 50,000 cubic foot single lift gasholder; and a 200,000 cubic foot telescopic gasholder.

25 YEARS AGO

November 1929

A CONSUMER POWER COMPANY, *Mich., crew of 60 men laid 2,000 feet of fire hose and pipe for an emergency line across the Saginaw River after the company's two six-inch mains were smashed by a dredge engaged to clean out the river channel.*

NOVEMBER 1929

EXPANSION IN CALIFORNIA. *Contracts aggregating $2¼ million were awarded recently by Southern California Gas Company, for the construction of a 20-inch natural gas pipeline from Kettlemen Hills to Buena Vista Hills terminal of the Southern California system, near Taft, a distance of 70 miles. The line, largest in Southern California, will have a capacity of 85 million cubic feet of gas a day.*

NOVEMBER 1929

GAS POOL IN ARKANSAS. *The Arkansas Natural Gas Company, a subsidiary of Cities Service Company, by bringing in a gas well making 35 million cubic feet daily, has added another gas pool to the map of Arkansas.*

NOVEMBER 1929

PG&E TO LAY SECOND LINE. *Straight natural gas will be available by July 1, 1930, to 471,000 of the 485,000 consumers in Pacific Gas and Electric Company territory. The company has been authorized to lay a second pipeline from the San Joaquin Valley to serve central and northern California communities not supplied by the recently completed main to the San Francisco Bay region.*

AMERICAN

Gas Fundamentals OUTLINE

NATURAL GAS
- *Geology and the Gas Industry
- *Methods of Drilling for Gas or Oil
- *Natural Gas Reserves
- *Chemicals from Gas
- *Natural Gas Conservation
- *Underground Storage of Natural Gas

MANUFACTURED GASES
- *Processes for Manufacturing Gas
- *Processes for Reforming Natural Gas
- *Hi-Btu Oil Gas
- *Interchangeability of Various Fuel Gases

LIQUEFIED PETROLEUM GASES
- *LP Gas and Its Use in Utility Service

BASIC GAS LAWS
- *Perfect Gases
- Supercompressibility

TRANSMISSION
- *Transmission of Natural Gas
- *Corrosion and Pipe Protection
- *Compressing of Natural Gas—Part 1
- *Gas Conditioning
- *Gas Flow Formulas
- *Principles of Orifice Measurement
- Pipe Coatings and Protection Methods
- *Pipeline and Network Gas Dispatching

GAS STORAGE
- *Methods of Storing Gas

GAS DISTRIBUTION
- *System Design and Operation
- *Elements of Gas Pressure Regulators
- *Gas Pressure Regulators in Use
- *Leak Detection and Control Methods
- *Measurement by Positive Displacement
- Measurement and Accounting
- *Gas Odorization in Distribution Systems
- Customer Service
- *Gas Dispatching in Distributing Utilities

GAS UTILIZATION
- *Principles of Gas Combustion
- *Competitive Fuels—Part 1
- *Competitive Fuels—Part 2
- Domestic
- Commercial
- *Principles of Absorption Refrigeration
- *Industrial Heat Processing with Gas

CONVERSION

MANAGEMENT PROBLEMS AND POLICIES
- *Corporate Organization of Gas Cos.
- *Public Utility Regulation
- *Public Relations for the Gas Company
- Theories of Rate Making
- *Functions of the Land Department
- *Communications in the Gas Industry
- Personnel Management

GLOSSARY
- *Ab-to-Zon

***Chapters published since Jan. 1951.**

How to Use and File *Gas Fundamentals*

American Gas Fundamentals *is a comprehensive compilation of basic gas facts to guide gas utility employees toward broader understanding of the industry.*

The series is designed to be removed from each issue of the GAS JOURNAL *and filed in a ring binder to form an enlarging text book of permanent usefulness. Material should be filed under the major headings in the upper right hand box on the opening page of each chapter.*

Regulating Gas Pressure

STATED simply, a gas pressure regulator is a mechanism that maintains a constant predetermined outlet pressure under conditions of variable flow rates and inlet pressures. That is the function of a regulator, whether it is designed for operation on a transmission pipeline with pressures in excess of 1,000 psi or in a residence adjacent to a gas appliance where pressure is measured in a few inches of water column. Of course, in some modern pressure regulators the function has been extended so that they act as shutoff valves when the outlet flow—which corresponds with the rate of consumption—has been reduced to zero.

High-pressure and high-capacity regulators are complicated mechanisms due to the operating conditions for which they are intended. However, low-pressure regulators used in residential gas service are quite simple.

Basically, any regulator—whether high- or low-pressure—includes 3 essential parts: *diaphragm, opposite-acting force* and *variable restriction.*

The *diaphragm* is a responsive element subject to the inlet gas pressure that is to be controlled. Diaphragms will react with some movement to any change in pressure on one side.

The *opposite-acting force* actually constitutes a standard to which the controlled pressure is referred. The force, or standard, may be deadweight, spring or a gas pressure acting on the diaphragm. In any case, the standard force acts in the direction opposite the force exerted by the pressure to be controlled.

The *variable restriction* might be a device such as a poppet valve, slide valve, piston or butterfly valve. It has a direct connection to the diaphragm and it is positioned in the gas stream by the pressure-responsive movements of the diaphragm.

With the 3 essential parts in mind, the basic principle of the construction and operation of a gas pressure regulator will be readily understood from Figure 1.

As in all mechanical equipment, a number of considerations determine which type of gas regulator is appropriate for specific operating conditions and requirements. These are the points of consideration:

1. Flow rate, maximum and minimum, in cfh at base pressure conditions;
2. Type of gas;
3. Specific gravity of gas;
4. Pressure, inlet, maximum and minimum;
5. Pressure, outlet, and required adjustment range;
6. Control accuracy, percentage tolerance;
7. Pressure build-up allowable at zero-flow;
8. Valve type, hard or soft seat;
9. Pipe connections, sizes.

Just as the larger regulators, for high-pressure, high-capacity operations are more complicated in their engi-

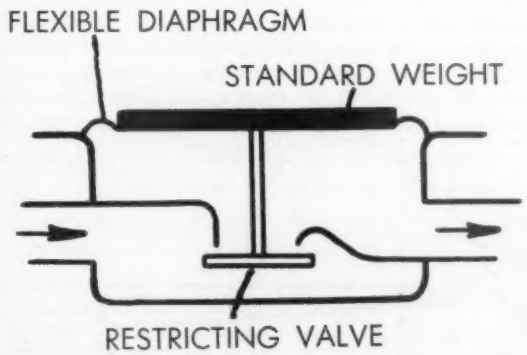


Figure 1. Simplified sketch of a gas pressure regulator showing the 3 essential parts: diaphragm, standard weight or opposite-acting force and restricting valve. Gas flow is left-to-right, with downstream pressure acting directly under the flexible diaphram. When the outlet pressure, right, decreases, upward force on diaphragm decreases, permitting the standard weight to move the diaphragm downward. The directly-connected valve moves downward, thereby reducing the pressure loss between inlet and outlet which raises the downstream pressure. When the downstream pressure becomes too high, the diaphragm-and-valve action reverses.

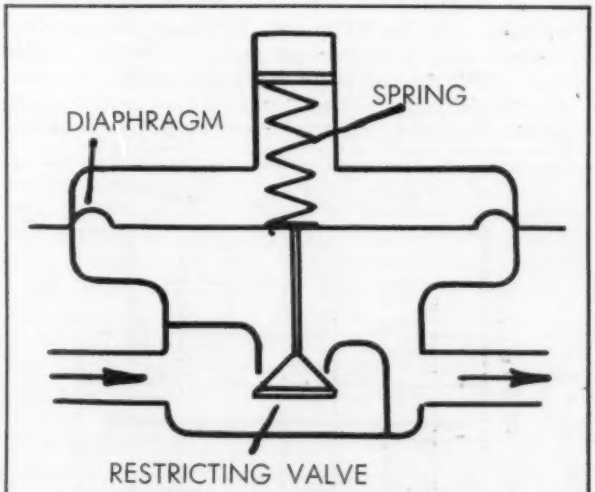


Figure 2. Single-valve spring-loaded regulator. As flow increases, valve opens farther to maintain constant pressure loss across restriction. Force of spring decreases as its length increases, therefore outlet pressure decreases as flow rate increases.

neering and construction, so the points of consideration in specifying them are more critical. And, quite obviously, it is relatively simple to select the more widely-used regulators for low-pressure, low-capacity operations. This simplicity, however, has been brought about through the long-term mutual cooperation and experience of the manufacturers and the operating and distributing departments of the gas utilities.

A better understanding of the importance of the 9 points of consideration for determining regulator type and size will be obtained from brief discussions of the major points.

Details considered in selection

Flow-rate. At normal loads, a regulator should be operating at approximately 50% of its rated capacity. Accordingly, correct sizing largely determines the maximum efficiency that can be obtained from a regulator. In general, the maximum expected load and the regulator capacity should very nearly match. If a regulator is oversized, it will have to operate with its valve or valves in an almost-closed position and this will often result in erratic control or pulsation. Ideally, the larger regulators should not have to operate at flow rates that are less than 10% of maximum. In practice, of course, many of the larger regulators must be operated at or almost at zero-flow. In the case of the smaller regulators for residential use, their design permits efficient operation from zero-to-maximum flow.

Type of gas. The drying action of most natural gases makes it desirable to use synthetic materials for diaphragms and soft-seat valves. Oil treated leather is preferred for maunfactured gas service. Liquefied petroleum gas necessitates special diaphragm treatment or synthetic materials.

Pressures. The mechanical structure of a regulator must be able to withstand the pressures with which it will be working. Moving parts must be constructed so that there will be a minimum of abrasion by high-velocity gas. Also, it is generally desirable to have the valves well off their seats during normal operation, so higher pressure drop across the regulator means small valves for a required flow rate. Range of outlet pressure determines the size of diaphragm case; the larger the diaphragm the more responsive it will be to pressure changes. The largest diaphragm consistent with pressure conditions should be used.

Control accuracy. The allowable percentage of pressure variation determines the mechanical method of applying the opposite-acting force in larger regulators. Earlier, this force or standard weight that acts on the diaphragm was noted as being deadweight, spring or gas pressure on the diaphragm.

Valve type. Here, the consideration is, first, that a soft-seat valve should be used if complete shutoff of flow is required; second, when valves are in high-pressure operation they are subjected to the abrasive action of particles carried in the gas stream, so hard-seat valves are used.

The mechanical principles of regulator operation and the major considerations in selecting proper type and size lead directly to the necessity for a broader understanding of the general types of regulators that are available, and the type of service for which they are intended. At this point it is emphasized that only general types of regulators will be illustrated and discussed. The technological advances in gas transmission and distribution during recent years have included many refinements and special-purpose developments in this field of gas pressure regulation.

The terminology applied to regulator parts and operations will now be made to conform with industry-usage. In line with that, a regulator that has a spring operating as the opposite-acting force on the diaphragm is known as a *spring-loaded regulator.* The simplified sketch in Figure 2 shows the manner of exerting the spring pressure on the diaphragm. In a comparison with Figure 1 and its accompanying explanation, the general principle of the operation of a spring-loaded regulator will be clarified.

The performance of a regulator—how well it serves in maintaining a constant predetermined outlet pressure under conditions of variable flow rates and inlet pressures—can be best visualized by plotting the outlet pressure against the rate of flow. A theoretically-perfect regulator would give a truly-constant pressure at all flow rates from zero-to-maximum. Such a condition is shown in Figure 3, by a horizontal line.

Variations from theoretical performance

Actually, there are a number of mechanical factors which prevent a regulator from performing in a manner that would produce the perfectly horizontal line in Figure 3.

As the flow increases, the valve must open wider to keep the pressure loss constant across the restriction. Referring to Figure 2, it is evident that this means the length of the spring will increase as the valve opens wider. The lengthened spring exerts a smaller amount of force. Since the

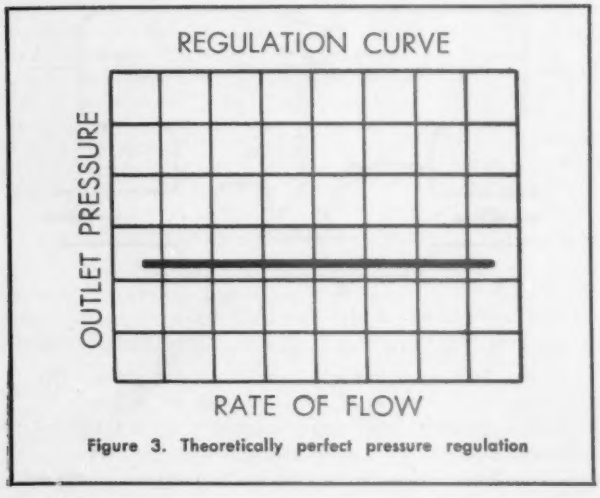


Figure 3. Theoretically perfect pressure regulation

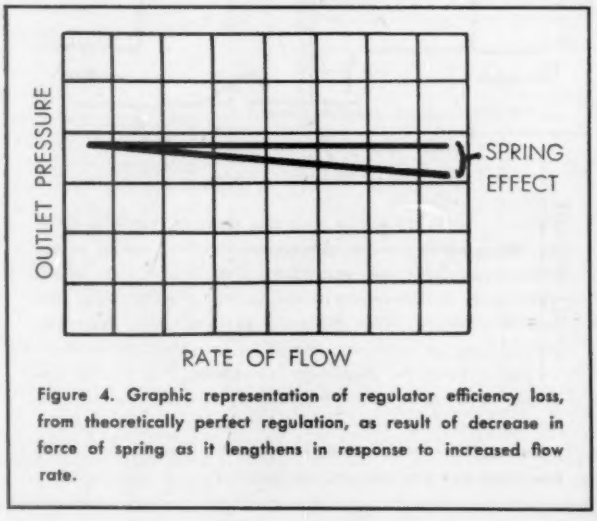


Figure 4. Graphic representation of regulator efficiency loss, from theoretically perfect regulation, as result of decrease in force of spring as it lengthens in response to increased flow rate.

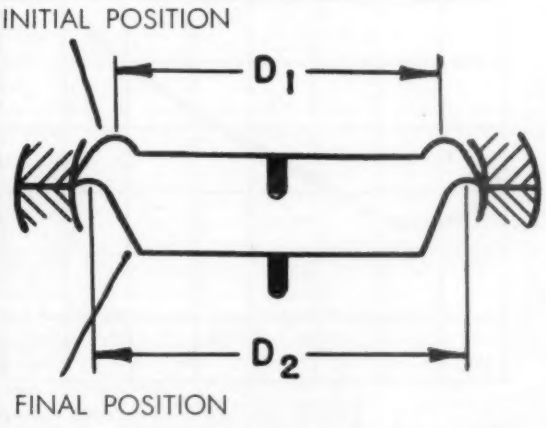


Figure 5. Diaphragm area becomes larger as it moves downward to open valve, thereby requiring less pressure below to counterbalance standard spring force.

standard value is decreasing as the flow rate increases—and the spring-pressure decreases—the outlet pressure must decrease accordingly. The amount of this decrease depends upon the flexibility of the spring and the diaphragm area. The regulator performance curve then drops from the theoretical value given in Figure 3 to a value that is shown in Figure 4. This is referred to as *spring effect*.

Another cause of variation in the performance curve, from the theoretical horizontal line, is the variation in effective diaphragm area at various positions. As the diaphragm moves down to open the valve, the area becomes larger as shown in Figure 5. As the diaphragm area increases, less pressure is required below the diaphragm to counterbalance the force of the standard spring. The effect of this condition—known as *diaphragm effect*—is to further lower the curve in Figure 4.

A third factor governing regulator performance and still further effecting the performance curve is classed as *body effect*. This is the turbulence of the gas between the restricting valve and the discharge or outlet from the regulator. In the spring-loaded regulator shown in Figure 2, the controlled pressure is on the outlet side of the valve. A definite pressure loss exists between this point and the piping where pressure usually is measured. If the flow through the valve impinges directly on the diaphragm, the impact pressure exerted against the diaphragm tends to close the valve.

The 3 factors which prevent regulator performance that follows the theoretically horizontal line in Figure 3 are shown as a cumulative effect in Figure 6. The conclusion will be properly drawn that performance of the elementary regulator would not be satisfactory for many control problems and that design features would have to be incorporated to overcome one or all of the effects.

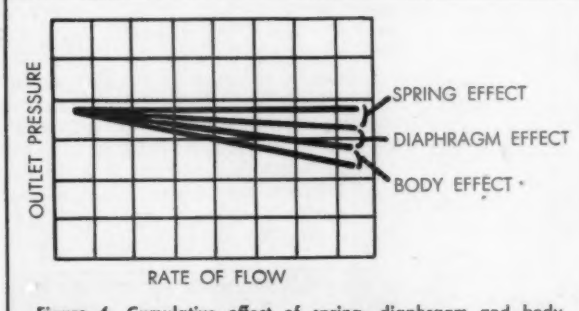


Figure 6. Cumulative effect of spring, diaphragm and body conditions on the performance curve of an elementary regulator.

How variations are overcome

The spring effect can be aided by using long and flexible springs, together with large diaphragm cases. That is the feasible method on the smaller sizes. On the larger sizes, springs would become too cumbersome, so either weight or lever-and-weight is used for the standard force.

The diaphragm effect can be reduced by using larger diaphragm cases. However, this is most satisfactorily accomplished on low-pressure regulators but it is not feasible on high-pressure regulators because the diaphragm cases would be, necessarily, too heavy, the diaphragm material would be too thick and the counterbalancing weights would be excessive. In the case of high-pressure regulators, the standard weight or spring is replaced by a constant gas pressure so that changing the diaphragm area will not cause any variation in the controlled pressure. Any effect of the diaphragm is eliminated because the forces exerted by the standard and controlled pressure will vary proportionately to the diaphragm area.

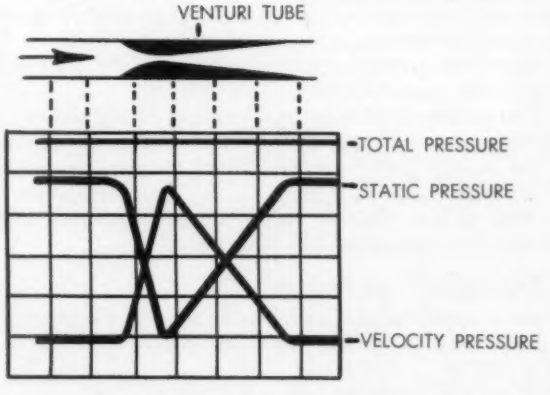


Figure 7. The chart shows how pressures in gas line are influenced by the insertion of a venturi. The curves represent pressures at the points directly above in the gas line, as indicated by the dotted extensions of the vertical coordinates.

Now, referring again to the performance curve for an elementary regulator in Figure 6, the spring effect and the diaphragm effect can be improved or eliminated to the point where only the body effect remains for consideration.

The body effect, as noted earlier in the chapter, is caused by static pressure changes from the point of control to the piping, due to friction loss or velocity change. The friction loss cannot be overcome, but it is possible to utilize the knowledge that static and velocity pressures are inversely proportional. Frictional loss in pressure can be eliminated by placing the control line to the diaphragm case in the downstream piping and, at the same time, gas impingement directly on the diaphragm will be eliminated.

With the establishment of practical means of overcoming spring and diaphragm effects, body effect can be overcome by adopting the principles observed in pressures passing through a venturi.

Total pressure in a gas line is the sum of static pressure

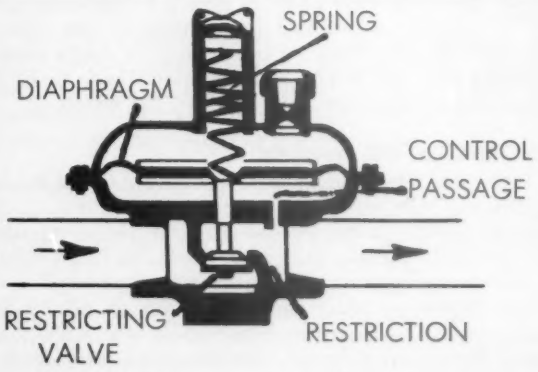


Figure 8. This sketch represents a small low-pressure regulator that includes design features overcoming the inefficient performance represented by the chart in Figure 6. The performance of this regulator is represented in Figure 9.

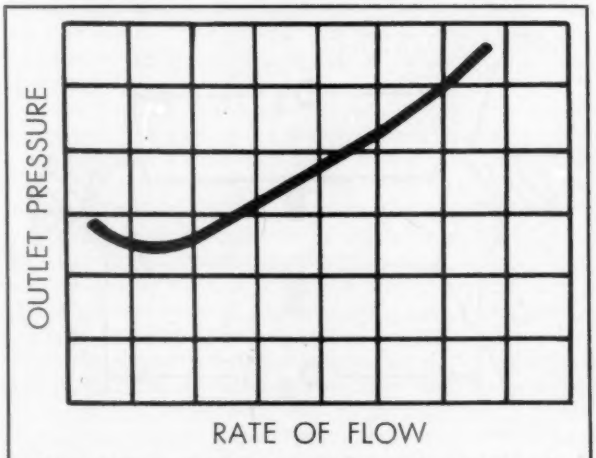


Figure 9. The performance curve of the regulator in Figure 8, shows increasing pressure with increasing flow rate, a condition which is offset by piping friction before gas reaches appliances.

and velocity pressure. Neglecting friction loss, if velocity pressure is increased due to area reduction in the line, static pressure is decreased. Figure 7 illustrates this, relating a pressure graph to a gas line that includes a venturi. The amount of drop in static pressure depends upon the volume of gas passing through. If minimum static pressure were held constant with a regulator, then pressure in the downstream line would increase as flow increased.

That is the principle that is built into a regulator body to give the desired effect.

This may be considered as a boosting device and can be used to overcome some spring effect and diaphragm effect in the regulator. However, too much boosting may cause an unstable regulator.

What is the result of this study to overcome spring effect, diaphragm effect and body effect?

Actual regulator performance

For a readily-helpful and graphic answer, a comparison is suggested between the elementary regulator in Figure 2 and the more highly-developed regulator in Figure 8. The latter is a small low-pressure regulator, including features that overcome the detrimental effects that have been discussed.

As additional answer to the question, performance is indicated in Figure 9. This upswinging curve of the service regulator is typical of what may be done in boosting the outlet pressure with the flow rate. While this indicated increasing of pressure with flow is detrimental to good combustion, it must be remembered that this regulator is designed basically for residential service and, after leaving the regulator, gas must pass through a meter and numerous fittings before reaching the gas appliance. Pressure losses in the usual residential piping will offset this pressure increase at the regulator.

Further discussion of gas pressure regulators will be presented in the next chapter of Gas Fundamentals.

This chapter on Regulating Gas Pressure was prepared by Howard J. Evans, chief engineer and manager, gas products research and development department, Rockwell Manufacturing Company.

How Company's Silence Makes An Enforceable Contract

by **Leo T. Parker**
Attorney at Law
Cincinnati

An official of a gas company which sells and installs appliances has written: "A few weeks ago I inspected certain gas appliances at a manufacturer's plant. I stated our requirements and made him an offer, but did not place a definite order. A few days later I received a letter from the manufacturer stating that he had thought the matter over and knowing that we needed the appliances he was holding same for us. He said 'I am holding this merchandise for you. Unless I hear from you at once that you don't want it, I will expect you to take delivery at the price you named not later than August 12.' When our truck went to the manufacturer's plant August 12, the manufacturer informed our truck driver that he had been offered a better price by another purchaser, and had sold the merchandise. Now, I find that this same merchandise is not available. What are our rights against this manufacturer?"

First, it is important to know that a valid contract is not made or completed until the buyer or seller unconditionally accepts the offer made by the other party. Hence neither buyer nor seller has any recourse for breach of such an invalid or nonexistent contract. However, before a dependable answer can be given to the reader's question the point of law, as follows, must be decided: When and under what circumstances may a purchaser by his silence accept an offer submitted by a seller?

Modern courts consistently hold that mutual assent of the parties is necessary to make a valid contract of sale. Generally speaking, a valid sale contract results from an offer by one party and unconditional acceptance by the other. The offer when communicated is a mere proposal to enter into the agreement and generally must be accepted before it can become a binding promise.

Silence may show acceptance

All courts are in accord with the proposition that if the buyer or seller declines to speak when speech is admonished at the peril of an inference from silence, his silence may justify an inference that he admits the truth of the circumstances relied on or asserted by the other party. See May, 184 N. C. 150. This court said: "Where either a buyer or seller fails to reply to any offer, his silence operates as a valid acceptance if the testimony shows that the offeror has stated or given the offeree reason to understand that assent may be manifested by silence and the offeree in remaining silent intends to accept the offer."

Let us assume extreme conditions, as follows: A seller submits an offer to sell gas appliances or equipment to a purchaser. In his offer the purchaser states that his offer is open for acceptance until November 10, at 4 P.M. The purchaser writes saying that if the seller does not hear from him further before November 9, he will send for and take delivery of the goods November 10. Under these circumstances a valid contract automatically comes into existence at Midnight November 8. This is so because the purchaser himself stated that his method of acceptance of the offer was to be his silence.

Also, in Williston, the court said: "Silence, though unaccompanied by any act, may amount to fraud and deceit if the seller knew that by his silence the purchaser would be deceived into purchasing merchandise he would not have purchased if the seller had not remained silent."

Another court said: "Whatever may have been the offeree's state of mind, no contract can be made unless the offer stated that the offeror would assume assent in case the offeree made no reply. If the offeror authorized silence as a means of indicating assent and the offeree so intends it, every requirement for the formation of the contract has been satisfied."

As indicated, if a purchaser used silence as a means of indicating his assent or acceptance of the seller's offer and the seller indicated that silence would be legal acceptance every requirement for the formation of the contract has been satisfied, and a valid contract exists.

Hence, a valid sale contract automatically is made by silence of a purchaser if a seller makes an offer to a purchaser and at this time both the buyer and seller agree that a valid contract shall be made if the purchaser does not reject the offer within a specified period.

Fraud is different

Courts consistently hold that in cases involving fraud either the buyer or seller may be guilty of fraud without mutual assent of both parties. For example, under any and all circumstances a seller is guilty of fraud where he keeps silent when in honesty toward the buyer he should disclose facts, particularly as defects in the merchandise. The same law is applicable to all other persons when knowing that silence will effect damage or financial loss to another.

See Helena, 91 N. E. 1137. Here a person named Klamut stood silently by and thereby encouraged a seller to believe that the gas appliances being purchased by another purchaser were being sold on credit with the understanding that Klamut automatically became jointly liable for payment of the merchandise. Since he stood by and remained silent thus indicating to the seller that he assented to having the merchandise charged to the joint account of himself and the purchaser, the court held him liable for payment.

With respect to contracts for sale of gas appliances a seller is not liable in damages for his fraudulent silence, statement or promises made to a purchaser who did not rely upon such statement before the sale was made, or the contract was signed.

In a case, Campbell Co., 21 N. W. (2d) 427, the court refused to hold the seller liable on a fraud charge because the purchaser failed to prove that he relied upon the alleged false statements, acts and silence of the seller. The purchaser did not prove that the fraudulent acts were performed by the seller before the contract of sale was signed. This court explained that a seller is not guilty of fraud and deceit, unless these facts are proved: the seller made a material and positive misrepresentation; the seller knew that it was fraudulent; the seller made it with the intention that the purchaser would be defrauded; the purchaser acted in reliance on the misrepresentation; and the purchaser thereby suffered financial loss.

With respect to contracts taken by a seller's salesman or agent, here is the law: An employer is not liable for fraud of his agent if the evidence proves either of these facts: (1) that the agent made a false statement after the sale contract was signed; (2) the agent actually did not make a positive statement regarding the quality of the merchandise, but merely expressed an opinion as to the quality of the merchandise; (3) or the purchaser did not rely upon or believe the statements made by the seller's agent.

Duty to speak

Notwithstanding the above law, under no circumstances may a valid contract result from silence on the part of the purchaser unless it is his legal duty to not remain silent with respect to the seller's offer. Stating the law differently, the general rule seems to be that silence of a purchaser, after he has received an offer from a seller, will not be construed to constitute a legal acceptance of the offer unless under all the facts and circumstances there is a duty on the part of the purchaser to make a reply to the offer.

In Cole-McIntyre-Norfleet Co. v. Holloway, 214 S. W. 817, it was shown that a salesman took an order from a purchaser who heard nothing more from the seller until he requested that the seller ship the goods ordered several months earlier.

The court held that silence of the seller for an unusual length of time amounted to assent or acceptance of the order. This court held that acceptance of the buyer's offer could be "inferred" from silence of the seller, as it was his duty to not by silence lead the purchaser to believe that the goods would be shipped. Hence, the seller's silence accomplished a valid contract.

Silence is assent

The courts held that silence is equal to an unconditional acceptance of an offer, in Davis 252 S. W. 989. The testimony showed that a buyer requested a seller to cancel an order for merchandise. The seller cancelled

Turn to page 39—PARKER

American Gas Journal FEATURE

Only

FISHER®

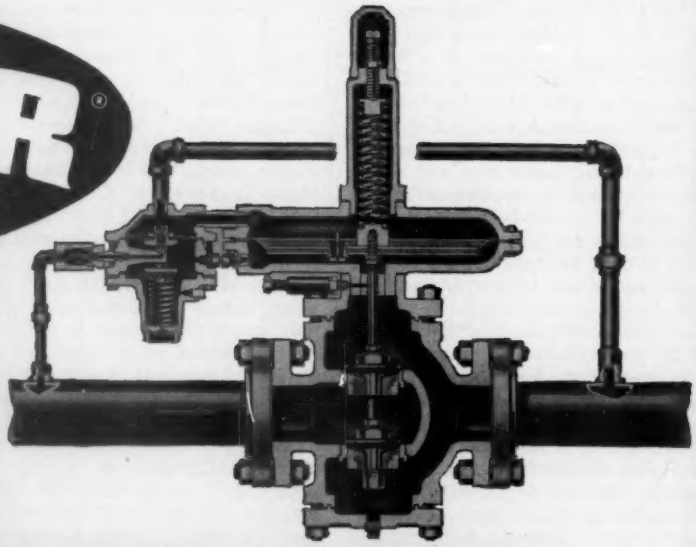
OFFERS THE PERFECT PAIR

FOR GAS DISTRIBUTION AND SAFETY RELIEF SERVICE

FISHER GOVERNOR COMPANY
MARSHALLTOWN, IOWA

LEADS THE INDUSTRY IN RESEARCH FOR BETTER GAS PRESSURE CONTROL

FOR DISTRICT REGULATOR SERVICE



TYPE 298 DISTRICT REGULATOR

- **VERSATILITY**

  Ability to handle widely varying conditions solves hundreds of gas industry's regulator problems.

- **STABILITY**

  Pilot loading pressure balanced principle of operation develops stable, non-pulsating precision control over widely varying flow ranges with reduced pressures of 2″ W. C. to 65 psi.

- **RANGEABILITY**

  The "298" series topwork is supplied with design "A" bodies (Metal to Metal seats) or design "K" bodies ("O" Ring Composition Disc inner valves) in pipe sizes 1″ to 12″.

- **NON-BLEED SYSTEM**

  The regulator is entirely free of atmospheric bleed. The pilot was designed so that all bleed gas passes into the downstream line. Pilot bleeds only when stroking main valve.

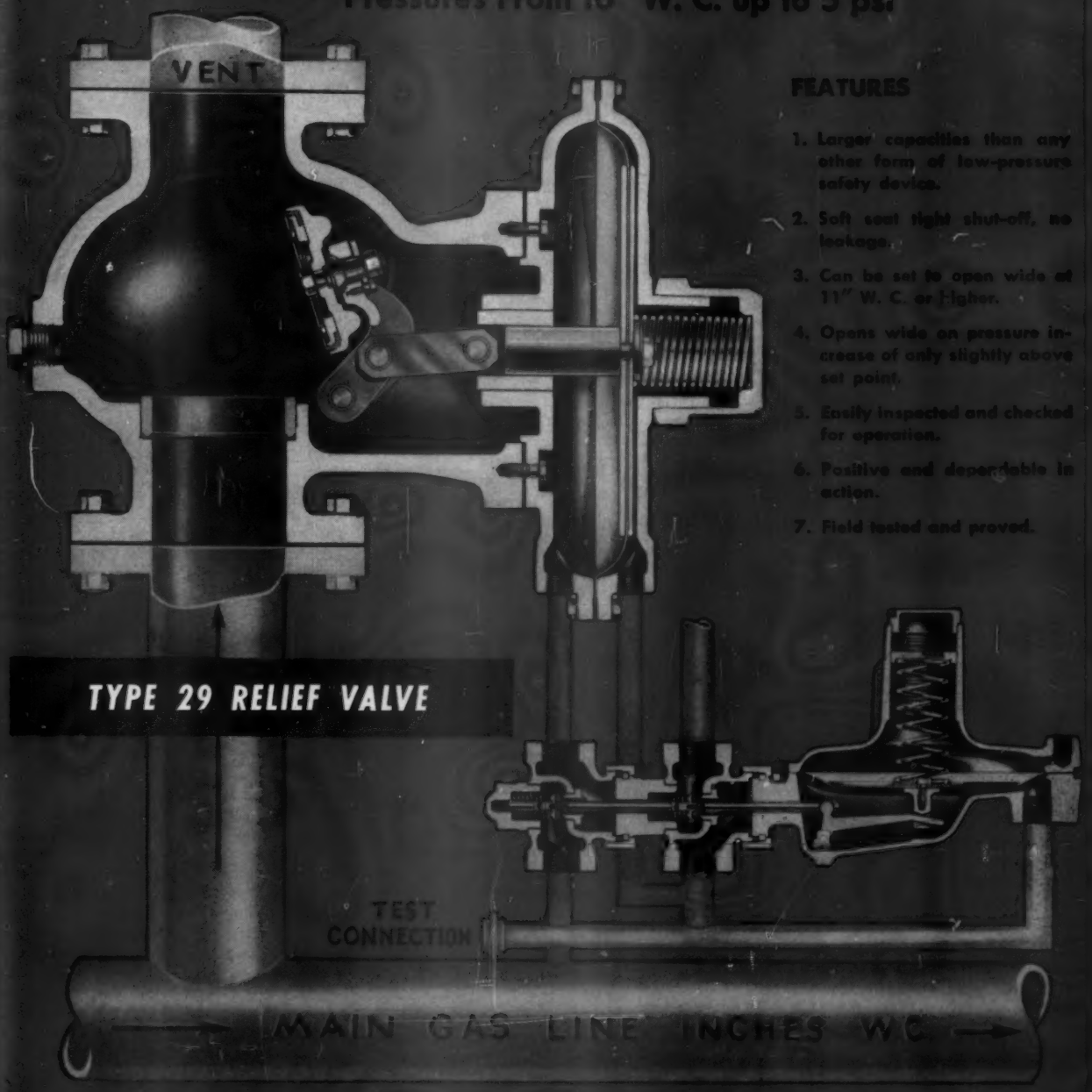
- **SIZES**

  1 to 12 inch pipe size.

- **APPLICATION**

  The "298" series is designed for *pressure reduction service* where regulation must be maintained with *high sensitivity* and *accuracy*. They are widely used on gas distribution systems as an intermediate or low pressure district regulator and in industrial regulator stations and industrial applications such as heat treating furnaces, bakeries, boiler plants and in installations where the inlet pressure does not exceed 150 psi, and where controlled pressure is desired within the range of 2″ W. C. to 65 psi. Write for Bulletin P-298A

SAFETY RELIEF FOR LOW PRESSURE GAS DISTRIBUTION SYSTEMS—For Reduced Pressures From 10" W. C. up to 5 psi



TYPE 29 RELIEF VALVE

FEATURES

1. Larger capacities than any other form of low-pressure safety device.
2. Soft seat tight shut-off, no leakage.
3. Can be set to open wide at 11" W. C. or higher.
4. Opens wide on pressure increase of only slightly above set point.
5. Easily inspected and checked for operation.
6. Positive and dependable in action.
7. Field tested and proved.

FISHER TYPE 29 is designed specifically to take care of relieving large volumes of low-pressure gas in order to protect a low-pressure distribution system. It will release only the volume of gas necessary to protect the system. Simple means are provided for periodic operating tests of the installed relief valve without over-pressuring main gas line.

Sizes 4", 6" and 8", 125-lb. ASA flange bodies. Relief Pressure Range: 11" W. C. to 5 psi.

Information on successful installations gladly furnished—Write for Bulletin P-29.

FISHER
Since 1880

Customers who buy for a

Photo: Ewing Galloway

This is Chicago, second largest city in the U. S. A. —population over 3½ million.

Print: Bettmann Archive

A view of Lake Street, Chicago, as it looked 100 years ago.

MODERNIZED cast iron

century are customers who know for sure!

Peoples Gas Light and Coke Co., Chicago (through a predecessor company) bought cast iron pipe 100 years ago—and still buys it.

Gas was turned on in Chicago September 4, 1850. Population was then 29,963. There were 5 miles of cast iron mains, 125 customers and 99 gas street lights. Today, Chicago's population is over 3,620,000. The Peoples Gas Light and Coke Co. has 988,054 meters supplied by 3,826 miles of mains, over 95% of which are cast iron.

Peoples Gas Light and Coke Company has been buying cast iron pipe for more than a century. So have public utilities in more than sixty cities in the United States and Canada. Such customers, in any industry, are rare indeed. They must have a compelling reason. They do. They have proof — *sure knowledge* — of the long life, reliability and economy of cast iron pipe.

Today's *modernized* cast iron pipe—centrifugally cast and with standardized mechanical joints—is even more economical and efficient. The pipe is stronger, tougher, more uniform in quality. The mechanical joints are bottle-tight for usual gas pressures and for all types of gas.

Cast Iron Pipe Research Association, Thos. F. Wolfe, Managing Director, 122 So. Michigan Avenue, Chicago 3, Ill.

This 4-inch cast iron pipe, which has been retired, was installed in Chicago's gas system in 1850. Examination of the pipe after over 100 years underground, showed it to be in excellent condition.

CAST Q® IRON

The Q-Check stencilled on pipe is the Registered Service Mark of the Cast Iron Pipe Research Association.

pipe FOR MODERN GAS DISTRIBUTION

Price Indexes of Gas, Other Fuels and Electricity

INCREASE in the gas rates for Portland, Ore., was largely offset by lower net monthly bills in 6 other cities, U. S. Bureau of Labor Statistics reports for August, the latest available data collected in large and small cities. Gas for residential space heating averaged 0.1% increase from July to August; non-space heating gas was down 0.1%.

ELECTRICITY RATES, as reflected in net monthly bills, were unchanged from July in the cities covered by BLS.

BITUMINOUS COAL PRICES continued upward, July-to-August. In 7 of the 26 cities surveyed, the increases ranged from 15-to-65¢ per net ton.

ANTHRACITE PRICES were up in 4 of the 9 cities for which data are collected. The increases were 20¢-to-$1.00 per net ton.

FUEL OIL PRICES advanced in 4 cities and the BLS index reflected that in a 0.7% increase, July-to-August. However, the most recent index is 1.5% lower than it was in August, 1953.

Source: Bureau of Labor Statistics, U. S. Department of Labor (1947-1949 = 100.0)

	1954								1953					
	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	June	Jan.
GAS														
Space heating	114.5	114.4	114.3	114.5	114.1	113.9	113.7	113.6	113.6	113.5	112.8	112.4	111.2	108.9
Non-space heating	108.8	108.9	108.8	108.9	108.8	108.8	108.8	108.8	108.8	108.8	108.2	108.0	107.2	106.4
Natural														
10 therms	99.5	99.9	99.7	100.0	99.9	99.9	99.9	100.0	100.0	99.8	99.9	99.8	98.7	98.3
25 therms	112.2	112.5	112.3	112.6	112.3	112.3	112.2	112.2	112.2	112.2	111.4	111.3	110.2	108.9
Manufactured														
10 therms	109.4	109.2	109.4	109.4	109.4	109.4	109.4	109.4	109.5	109.5	108.2	108.1	107.4	106.9
25 therms	110.2	109.4	109.6	109.5	109.6	109.6	109.6	109.6	109.7	109.7	109.1	109.0	108.4	107.8
Mixed														
10 therms	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.0	96.2	96.2
25 therms	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	100.4	99.9	100.0	100.0
All types combined														
10 therms	105.1	105.2	105.2	105.3	105.2	105.2	105.2	105.3	105.4	105.3	104.8	104.7	103.9	103.5
25 therms	112.6	112.7	112.6	112.8	112.6	112.6	112.5	112.5	112.5	112.5	111.8	111.7	110.7	109.6
ELECTRICITY														
Composite	104.8	104.8	104.5	104.5	104.5	104.5	104.4	103.8	103.8	104.2	104.2	104.1	104.1	104.4
SOLID FUELS														
Bituminous—All sizes combined	117.9	117.4	117.2	117.2	119.5	120.6	120.6	120.7	120.6	120.4	120.2	119.5	117.3	119.8
Anthracite—All sizes combined	126.4	124.7	124.1	123.1	130.2	135.0	135.0	135.0	135.0	135.0	134.9	134.8	130.6	135.9
PETROLEUM														
Fuel oil No. 2	118.5	117.7	117.7	118.1	120.6	122.1	123.2	121.9	120.9	122.7	122.5	120.2	117.9	116.6

THE INDEX of retail prices of fuels and electricity, issued monthly by the Bureau of Labor Statistics, U. S. Department of Labor, considers specific consumption quantities of gas, 10 and 25 therms, representing typical usage by families represented in the Bureau's Consumer Price Index.

Monthly gas bills, net, are basis for computing the index. Data are collected in these cities:

NATURAL GAS	Detroit	New York
Atlanta	Houston	Pittsburgh
Baltimore	Kansas City	St. Louis
Cincinnati	Los Angeles	San Francisco
Cleveland	Minneapolis	Washington
MANUFACTURED GAS		Portland, Ore.
Boston	New York	Scranton Seattle
MIXED GAS	Chicago	Philadelphia

The index for electricity is based upon data collected in the same list of cities.

Anthracite prices are collected in 9 large and small cities; bituminous prices in 26 large and small cities; fuel oil No. 2 prices, from 11 cities.

The base period of the index is the average for the years 1947, 1948 and 1949. That average is referred to as "100.0."

Month-to-month net retail prices and applicable taxes are compared with the base, and computed to express, as an index number, any change from the base. While these indicators are numbers, they may be interpreted directly as percentages of change from the base period.

Examples: A current index number of 121.8 indicates a 21.8% increase from the base period; an index number of 96.4 indicates a decrease of 3.6% from the base period. This percentage comparison is applicable only from the current index to the base period.

Percentages of change from one index number to another comparable index number, other than the base (100.0), can be calculated: Subtract the older number from the new number, then divide the difference by the older number.

Examples: Older number is 115; newer number is 125; difference is 10. Divide 10 by 115; answer is 0.0869, or an 8.7% increase. Older number is 125; newer number is 115; difference is 10. Divide 10 by 125; answer is 0.080, or an 8.0% decrease.

Index of Yields: Selected Utilities Stocks

Expressed as percentages

	1954										1953				
	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Dec.	Nov.	Oct.	June	Jan.
Transmission companies	4.40	4.17	4.17	4.25	4.04	4.08	4.15	4.17	4.25	4.21	4.39	4.44	4.44	4.72	4.04
Transm. & distrib. companies	4.70	4.61	4.67	4.88	5.01	5.01	5.11	5.27	5.39	5.39	5.54	5.49	5.58	5.55	5.02
Manufactured & mixed companies	4.38	4.16	4.26	4.36	4.45	4.46	4.67	4.68	4.66	4.66	4.91	4.75	4.94	5.08	4.87
Class "A" electric companies	4.46	4.36	4.31	4.31	4.60	4.64	4.70	4.68	4.92	4.92	5.10	5.15	5.14	5.53	5.08
Class "B" electric companies	4.77	4.74	4.70	4.78	4.83	4.94	4.94	4.93	5.01	5.14	5.23	5.14	5.37	5.68	5.19

This is a straight arithmetical index of comparative yields obtainable on a selected group of gas and electric utility industry common stocks.

The companies comprising this index have been selected by the AMERICAN GAS JOURNAL as providing a representative cross-section of each industry, from the standpoint of geographical diversification and of the relative importance of the individual companies in their areas.

No effort has been made to weight the average to give effect to changes in capitalization or in dividend rates because the yields afforded on the issues reflect such changes. The index is designed to show the rate of return and not necessarily market movements on the stocks comprising it.

This index is compiled from: natural gas transmission companies, 5; natural gas transmission and distribution companies, 5; manufactured and mixed gas companies, 4; class "A" electric companies, 4; class "B" electric companies, 5.

Fewer New Corporate Bond Offerings Head for Market

By **John F. Falvey**
Financial Editor

DESPITE continuing contraction in yields on top-grade corporate bonds, 3% continues to be the point below which institutional investors are not prone to go in their efforts to put to work their available funds.

At this writing only about $3 million of the recently offered $75 million New York Telephone Co. obligations offered on a 2.95% basis have found their way into buyers' hands; and underwriters have taken a small licking in breaking the syndicate on Florida Power Corp. bonds, which thereupon fell to a market price below the underwriters' cost.

The situation is not a sombre one, however, but one whose prospect is viewed with something akin to equanimity by investment firms.

For one thing, not much in the way of new corporate bond offerings now is headed for the market. Secondly, and at least equally important, there seems to be scant possibility of the United States Treasury unsettling the bond market with a new long-term offering of any substantial size.

In fact, it is possible that no long-term bonds will be employed either for meeting any part of the $17 billion maturities coming due December 15, nor for raising additional funds for the Treasury in the balance of the fiscal year ending next June 30.

Contributing to this favorable outlook are better than anticipated tax receipts, reduced government expenditures and the expectation that Treasury will be able to recover from Commodity Credit Corp. about $1¼ billion of the funds it advanced to the latter agency earlier this year.

To exceed 1953

Unwillingness of institutional investors to "reach for" new corporate issues at lowering interest rates is easily understandable when it is considered that the total of all new long-term borrowing in 1954 promises to exceed the 1953 figure. While corporate borrowings this year are expected to be about 10% below 1953, thanks to inventory reduction and to lower plant and equipment expenditures, with a further drop looked for in 1955, this decline currently is being exceeded by the increase in mortgage borrowing, and in state and municipal financing. State and municipal financing to date in 1954 has been 20% ahead of the year earlier level and for all of the current calendar year it probably will exceed $7 billion, compared with $5½ billion in 1953.

Reflecting both the second largest volume of new housing starts on record, as well as liberalized mortgage credits, the year 1954 should record the largest net addition to outstanding real estate mortgages registered to date. For the first time in 3 years, the life insurance firms recently have been investing a greater proportion of their lendable funds in mortgages than in corporate bonds.

While bonds have been improving their market position at a very gradual rate, stocks recently have been on the proverbial skids. Three very good reasons might be assigned for this development—election fears, slower than anticipated recovery in the general business pattern, and the rather persistent rise in stock prices over the past year, until recently, in the face of declining profits.

Since one of the more important stimuli to share prices since the Eisenhower Administration took office has been its understanding attitude toward business, it is only natural that the stock market should view adversely the steps which it thinks a Democratic Congress might try to undertake to end this so-called "business coddling."

But as close observers of the financial scene make haste to point out, there is no uniformity even in financial quarters as to the scope of possible market unsettlement likely to result from Democratic resurgence in this off-year.

On a market price times earnings basis, corporate common stocks as a group have advanced about 30% in the short space of a year, and the prevailing 4¾% yield return afforded at current dividend rates is a full 100 basis points below what it was a year ago at this time. Small wonder that the market has begun to worry a bit over the possible outcome of the election.

Profits to reflect returns

At any rate, corporate net profits in 1955 presumably will reflect to increasing degree any decline in sales and in net returns. This would be so if only for the reason that any drop in net earnings next year will not have the benefit of tax reductions which did so much to absorb earnings declines witnessed in 1953 and early in 1954.

The yield return on industrial stocks currently is about in line with that afforded on utility equities, the latter now being quoted on a 4.77% average basis, compared with 4.60% a few weeks ago.

The drop in market price for the utility shares has just about restored the traditional gap in yields between utility equities and mortgage bonds.

As can readily be seen in the action of individual issues, the stock market continues largely professional, or at least institutional, in character. It does not take too much in the way of bids or offers to move a specific issue rather sharply up or down. The public's funds are conspicuous by their absence. According to no less an authority than the Securities and Exchange Commission, only $300 million of an estimated $3½ billion increment to liquid savings in the latest reported quarter found their way into preferred and common stocks. This is a mere drop in the bucket.

Since this figure includes investments by pension funds and non-profit institutions, it can readily be seen that individuals are putting only a small fraction of their new savings into equities.

This will make the equity market all the more vulnerable should any considerable amount of liquidation come into the market during the period ahead. The absence of both a large volume of new common stock offerings by issuing corporations and of investor liquidation explains why the market has been so sensitive on the upside to a limited amount of investment buying this year.

Savings figures fail to indicate as yet a broad popular demand for equities that could absorb heavier liquidation.

Deterrent to decline

Liberal dividend policies of corporate management probably have acted as a deterrent to greater decline in average market prices for common shares than has been witnessed to date. Cash dividend payments have established a new record high rate in the third quarter of 1954 and another record seems in store for the full year. Not only have there been only a limited number of dividend reductions or omissions, but the list of corporations enlarging distributions has been on the increase.

The contraction in new fixed and working capital needs for business in general might represent the principal reason underlying management liberality to shareholders. For the present quarter plant and equipment expenditures are placed at $6½ billion, or nearly 15% below the $7.6 billion spent for this purpose in the third quarter of 1953.

Other important developments have been the $4 billion annual rate at which inventories were being reduced at last report, against an increase in the similar period of 1953.

So well has corporate management been fixed for ready cash that bond retirements recently were running at double the rate of a year ago at this time and loans made to business by Federal Reserve member banks were $2 billion below the corresponding 1953 level.

Moreover, the calibre of reported earnings has been improving, with depreciation reserve accruals alone accumulating at a rate about $2 billion more than in 1953, with the total this year estimated at $14 billion.

While the stock market has not been doing as well recently as it had heretofore, a floor under the market has been building up gradually in the form of demand from conservative funds, such as insurance companies, savings banks, pension and profit-sharing plans, endowment funds and the various forms of trust estates.

These investors are in the stock market to stay, according to Benjamin Strong, president of United States Trust Co. of New York, which is one of the largest adminis-

Turn to page 40—FALVEY

INDEX OF YIELDS:
SELECTED UTILITIES STOCKS
See bottom of facing page.

AMERICAN Gas Journal FEATURE

FEDERAL POWER COMMISSION

Transcon and TGT file settlement for proposed NY-NJ service

The Commission has announced filing of a proposed settlement in which two interstate pipeline companies—Transcontinental Gas Pipe Line Corp. and Tennessee Gas Transmission Co.—agree to compromise competing applications to serve six customers in the New York-New Jersey market area.

Tennessee filed an application to construct facilities to provide service to present and new customers in New Jersey and metropolitan New York. Transcontinental filed a competing application to serve customers in the same area.

In their proposed settlement, the two pipelines agree to divide the market and to serve together: Brooklyn Borough Gas Co.; Brooklyn Union Gas Co.; Consolidated Edison Co. of New York, Inc.; Kings County Lighting Co.; Long Island Lighting Co., and Public Service Electric & Gas Co. of New Jersey.

In addition, Tennessee would deliver firm gas to: Brooklyn Union, Consolidated Edison, Long Island Lighting, and Public Service. Also, the four companies could purchase fixed quantities of "storage option" gas from Tennessee's existing and proposed new storage fields in Pennsylvania and New York.

Five customer companies would, under the compromise, buy daily quantities of firm gas from Transcontinental: Brooklyn Borough; Brooklyn Union; Consolidated Edison; Kings County; and Public Service.

The agreement specifies that Transcontinental construct a 24-inch pipeline from a point on Tennessee's proposed Hebron, Pa.,-Greenwich, Conn., line, to connect with Transcontinental's existing 30-inch pipeline near Paramus, N. J. Tennessee has agreed not to construct a lateral line it had proposed to build from its proposed Hebron-Greenwich line to Harrison, N. J.

Transcontinental would transport for Tennessee, through this joint interconnection, up to 25 MMcf daily of firm gas and up to 30 MMcf of storage gas daily for delivery to Public Service. Transcontinental would also transport for Tennessee, through its existing 10-inch lateral line, gas to Public Service's Paterson Works. Tennessee would pay Transcontinental a transportation fee totaling $200,000 per year for this service.

American Louisiana Pipe Line gets conditional ok on La-Mich system

The Commission has issued a conditional certificate to American Louisiana Pipe Line Co. authorizing a Louisiana-to-Michigan natural gas transmission system to serve markets in the Michigan-Wisconsin area.

The certificate is conditioned to provide that American Louisiana cannot commence construction until the independent producers which are to supply gas for the project have applied for and obtained FPC authorization.

Concurrently, a certificate was issued to Texas Gas Transmission Corp. authorizing it to build facilities to supply American Louisiana with part of its natural gas requirements. This certificate is conditioned to require that construction cannot begin until the suppliers from which Texas Gas purchases natural gas have complied with FPC Order 174-A, which prescribes rules to govern independent producers, where applicable.

The American Louisiana project will include about 1-172 miles of pipeline. The company also proposed to build 117 miles of line from a point on its proposed system near Payne, O., to Bridgman, Mich. The Commission did not authorize this portion of the system pending proceedings on related applications by two affiliates of American Louisiana—Michigan-Wisconsin Pipe Line Co. and Michigan Consolidated Gas Co.

The total overall cost of the American Louisiana system is approximately $130,000,000, including the portion of the line not authorized.

Texas Gas will construct about 48 miles of pipeline at an estimated cost of $4,281,135 and will supply American Louisiana with an average of 51 MMcf of gas per day.

American Louisiana plans to supply 100 MMcf daily to Michigan-Wisconsin and 200 MMcf daily to Michigan Consolidated. Hearings on the applications of the latter two companies have not been completed.

Both the American Louisiana and Texas Gas certificates are conditioned to require the companies to file satisfactory rate schedules not less than 60 days prior to the commencement of service. American Louisiana must also file a plan of financing satisfactory to FPC at least 30 days prior to starting construction of its project.

American Louisiana's gas purchase contracts provided that the sellers could terminate them on or after October 1 if the company had not secured its FPC certificate. Pointing to the "crying demand" for additional gas in the Michigan-Wisconsin area, the Commission majority, in a 3 to 2 vote, said that it did not believe that it "would be consistent with our responsibilities, during this transitional period" resulting from the United States Supreme Court decision in the Phillips Petroleum Company case "for us to adopt any procedure for enforcing the mandate of the Phillips decision, which might result in a collapse of the American Louisiana project to the detriment of the public welfare."

TETCO and NYS Natural seek okay for Penn. storage facilities

Texas Eastern Transmission Corp. and New York State Natural Gas Corp. have asked the Commission for authority to construct, operate and acquire additional underground natural gas storage facilities as part of their joint Oakford storage project in Westmoreland County, Pa.

The two companies propose jointly to construct and operate additional field pipelines and to connect up additional wells in the Murrysville pool; to acquire a 2,000 hp field gathering compressor station from The Peoples Natural Gas Co.; and to install an additional 1,980 hp at the station to be acquired from Peoples.

Total estimated cost of the construction is $726,300. In addition, the companies would pay $433,744 to Peoples for the compressor station.

Revenues and income—August 1954

Operating revenues of natural gas pipeline companies totaled $108,418,725 in August 1954, and $1,538,526,834 for the 12-month period then ended, representing increases of 6.4% and 15.5% over revenues in the like periods a year earlier.

Utility operating income for August and for the 12-month period were 1.2% and 13.1% higher then the amounts a year ago.

Net utility plant of the companies at the end of August increased 8.9% over August of last year.

Net income for August was down 10.3% from August 1953. For the 12 months ended August 1954, an increase of 7.9% over the comparable period ended August 1953 was realized.

Gas sales to other gas utilities for resale, for the month were 9.1% over August 1953. Sales to ultimate consumers during this month increased 4.2% over August 1953. For the respective 12-months periods ended August 1954 and 1953 sales to other gas utilities for resale and to ultimate consumers increased 7.0% and 6.9%, respectively.

Operating expenses of the companies during August 1954 were up 12.0% over August of last year. The cost of purchased gas increased 13.2% over 1953. The volume of gas purchased in August 1954 was 7.4% higher than purchases made last August. On a 12-month basis, purchased gas for the period ended August 1954 increased 17.7% over the comparable period ended August 1953.

Gas transmission expenses during August 1954 increased 12.6% over last August. Transmission expenses for the 12 months ended August 1954 were 14.1% higher than expenses for the comparable 12 months ended in 1953.

Depreciation, depletion and amortization charges during August 1954 were up 17.6% over August 1953. For the 12-months periods ended in those months such charges were higher by 15.6% in the later period.

Taxes charged to operations by the pipeline companies during the 12 months ended August 1954 were up 5.7% over charges in the similar period ended August 1953.

So. Natural files rate increase

Southern Natural Gas Co. has filed a proposed $7,018,000, or 17.4%, annual wholesale rate increase to become effective November 1.

El Paso Nat'l files rate increase

El Paso Natural Gas Company has filed a proposed $18,113,000, or 15%, annual wholesale rate increase. The proposed increase is in addition to a $15,287,000 increase the company is currently collecting subject to refund.

News of the Gas Industry

CONSUMERS POWER CO'S NEW CUSTOMER SERVICE CENTER

More than 20,000 residents of the Flint, Mich., area visited Consumers Power Company's new Flint Div. customer service center in Flint during a 4-day open house celebration September 23-26.

Special exhibits and displays were located throughout the 175,000-square feet of the main building and fleet service area, and the building's auditorium featured pictures showing Flint's civic, industrial, institutional and residential growth in the current year.

The service center project, which began in March, 1953, was put into operation late in July, 1954. The majority of the division's 64,000 gas customers will be served from the center, which will also serve electric customers.

Equitable Trains Fire-Fighters With Hot Demonstrations

275 Equitable Gas Co. supervisors and visitors attended two fire-fighting training demonstrations conducted recently as part of the company's accident prevention program. The sessions, held in Pennsylvania and West Virginia, were planned to exhibit techniques of fire control through the use of dry chemicals and other agents in combating high pressure natural gas fires.

The group was divided into two sections, with 150 witnessing the first demonstration and 125 attending the second session. Following the showing of a movie dealing with methods of combating butane type fires, a crew of company and professional firefighting personnel demonstrated methods of extinguishing five types of gas fires, including bellhole, open horizontal jet, well casing and broken flange type, split line, and a gasoline spill fire. Precautionary control measures were taken to insure complete safety of personnel and property during the demonstration.

James B. Hall, manager of accident prevention, Equitable Gas System, considers such training sessions invaluable in keeping personnel informed on new and advanced safety techniques.

Executive Appointments at UGI

In organizational changes at United Gas Improvement Co. which are to become effective January 1, 1955, J. A. Frick, vice president in charge of Lehigh Valley Gas Div., will retire and will be succeeded by A. S. Morgan who has been vice president in charge of Lancaster County Gas Div. J. L. Harrison, operating manager of the Harrisburg Gas Div. will become general manager at Lancaster, to succeed Mr. Morgan, and W. R. Bollendorf, Jr., will be advanced to operating manager at Harrisburg. R. L. Yeager, of Philadelphia will be transferred to Harrisburg to succeed Mr. Bollendorf.

A. S. Morgan

J. L. Harrison

W. R. Bollendorf, Jr.

Mr. Frick's retirement comes after 51 years of service with the company. Mr. Morgan has been with U.G.I. since 1926 and, like Mr. Frick, is a past president of Pennsylvania Gas Association.

Mr. Harrison, who was appointed operating manager of the Harrisburg Div. in 1951, will move to Lancaster.

Servel Entertains Gas Industry

F. Marion Banks, president, American Gas Association, and president, Southern California Gas Co., and Mrs. Banks, with Duncan C. Menzies, president, Servel, Inc., during the party at which the new Servel president "met the gas industry." Mr. Menzies is shown handing Mrs. Banks a sprig of heather, brought from his native Scotland during a recent visit.

J. Theodore Wolfe, executive vice president, Consolidated Gas Electric Light & Power Company of Baltimore, who addressed the AGA convention on The Gas Industry in Action, and Mrs. Wolfe, with Mr. Menzies, during Servel's party.

Kloer Is Worcester Gas Asst Pres

Edward F. Kloer, former vice president and general manager of Lake Shore Gas Co., O., has been appointed assistant to the president of Worcester Gas Light Co.

Edward F. Kloer

Mr. Kloer has been associated with the gas industry for more than 40 years having started with Indiana Gas Utility Co. in 1914. In 1942 he was named operating head of Lake Shore Gas and served in that capacity until 1953, when he resigned to join New England Gas and Electric System.

In his new position Mr. Kloer will have general administrative duties and will operate from company headquarters in Worcester, Mass.

Walter Dietmeyer

Walter Dietmeyer, division service superintendent of North Shore Gas Co., Waukegan, Ill., died October 5, after an illness of two months.

Mr. Dietmeyer, who was 47, had worked at North Shore for more than 25 years.

Gas Industry Submits Statements To President's Cabinet Committee

GAS industry associations have submitted 3 statements to the Cabinet Committee on Energy Supplies and Resources Policy.

The purpose of the committee was stated by President Eisenhower: ". . . undertake a study to evaluate all factors pertaining to the continued development of energy supplies and resources and fuels . . . with the aim of strengthening the national defense, providing orderly industrial growth, and assuring supplies for our expanding national economy and for any future emergency."

The committee was directed to report to the President by December 1, 1954. Members of the committee are Arthur S. Flemming, director, Office of Defense Mobilization, chairman; John Foster Dulles, Secretary of State; Charles E. Wilson, Secretary of Defense; Herbert Brownell, Jr., Attorney General; Douglas McKay, Secretary of the Interior; Sinclair Weeks, Secretary of Commerce; and James Paul Mitchell, secretary of the committee.

An executive director is to be named for work under committee policies and to guide task forces and report preparation.

A gas task force, and another for oil, will be organized from representative groups in the industries.

The gas industry statements, by American Gas Association, Gas Appliance Manufacturers Association and Independent Natural Gas Association of America, were prepared in response to invitations by the committee chairman, Dr. Flemming.

AGA statement

A summary of American Gas Association's membership and the authority for the statement served as an introduction. Titled, "Gas and Its Service to the Nation," it was submitted by the AGA Committee Relative to the Cabinet Committee's Study.

Six considerations were referred to the President's committee as "vital to this evaluation" of factors in the continuing development of energy, resources and fuels. In somewhat condensed form, they were:

1. Gas in homes, business and factories meets essential needs and provides vital services. Limitation in peace or war would have adverse effect.
2. Gas in homes, businesses and factories in preference to other fuels resulted from development of improved appliances, assured supplies, research, better means of production, transportation, storage and distribution, and investment of large sums by public.
3. United States has proceeded on basis that homeowner and industry have free choice among fuels. This freedom of choice promotes the "orderly industrial growth."
4. Adequate supplies of natural gas resulted from public demand and further development of supplies will be dependent on this demand.
5. The industry is required to render adequate service on non-discriminatory basis, at reasonable rates; it is meeting obligation and can continue so to do only if left free to carry on.
6. The industry will play vital part in any future war. Gas will be essential to production necessary for conflict. The industry has energy, enterprise, and will to meet obligation; Nation will be served best by permitting it to continue on its path.

The statement proceeded through subdivisions on general extent of gas use, then to specific considerations of residential, commercial and industrial utilization. Each subdivision presented a summary with appropriate historical and current information.

A discussion of the use of gas for boiler fuel was accorded a separate subdivision and described the reason for boiler fuel use, importance of gas in fixing rates for electric service, the importance of boiler fuel loads in fixing rates for gas.

Gas industry operation under Federal and state regulations was summarized and the committee was urged to "take into account these fundamental principles of regulation under which the . . . governments require utilities to render adequate service on a non-discriminatory basis and at reasonable rates and the fact that the Federal government should assist this local regulation."

Reserves of natural gas, currently being produced from more than 65,000 wells, were highlighted for the President's committee, with emphasis on authoritative opinion that the ultimately recoverable reserves will amount to at least 600-trillion cubic feet, or more than 3 times the currently proved reserves.

The extent of the transmission and distribution systems of the country was indicated to the President's committee. Also, underground storage of gas was referred to as part of the gas industry's continuing overall program of technological advancement.

Investment, anticipated future expansion and the nature of fuel competition were discussed briefly.

GAMA statement

Gas Appliance Manufacturers Association submitted a statement to the President's committee, over the signature of H. Leigh Whitelaw, managing director, with the general title, "The Public Accepts Gas Appliances and Equipment in a Free Economy."

For the ready-information of the committee, the GAMA statement included a resume of the membership and the interests involved in the related manufacturing activities. Similarly, recent history of appliance sales was presented, with appropriate comments on public acceptance.

The GAMA statement, for the convenience of the President's committee, referred to specific portions of the AGA statement that gave gas industry facts and figures and endorsed them to the committee without repeating them.

Under the subtitle, "Facts on Acceptance of Gas as a Precision Tool of Industry," the GAMA statement summarized the characteristics of industrial utilization of gas for processing purposes. A survey of this utilization recently drew highly pertinent comments from a wide range of industrial firms. Quotations from 14 unnamed executives in as many industries expressed the industrial-customer viewpoint to the President's committee.

"The importance of gas in producing heat energy," the statement emphasized, ". . . leaves little doubt as to the complete acceptance and indispensability of gas in industry."

The subdivision dealing with gas as a commercial fuel established that gas cooks 95% of more than 65-million meals served daily in public eating places and institutions.

INGAA statement

The statement submitted for Independent Natural Gas Association of America, by John A. Ferguson, executive director, expressed broad views of the position of the natural gas segment of the industry in the national economy and then continued at length with 3 subdivisions: "a brief historical description of the natural gas industry with an analysis of the scope of its current contribution to the national economy and to the public service, health and welfare; second, an evaluation of the high service potential of the industry in the event of a national emergency; third, suggestions for certain remedial governmental action which will result in strengthening the ability of the industry to render even a higher order of service, both in our normal economy and in emergency situation."

The INGAA statement described what was referred to as "the impact" of the Supreme Court decision in the Phillips case, including also explanations of the risk-character of exploring for additional gas reserves.

"It is the firm recommendation of this Association," the statement urged, "that the Natural Gas Act be promptly amended so as to eliminate from the Federal processes of regulation, and thus return to the conservation control exercised by the states and to the initiative of the risk-taker, the vital activity of discovering and producing the natural gas so clearly needed in the years to come."

Ebasco Opens Office in Oregon

Ebasco Services Inc. has opened an office in Portland, Ore., to acquaint new clients with the company's services and to facilitate closer relations between the Ebasco staff and its clients in the western United States.

William F. Rooney, who joined the company in 1950, will be in charge of the new office. He began his business career with Boston Edison Co. as an industrial sales engineer and architectural service supervisor. Since 1953 he has been a new business representative for Ebasco.

Bailey Is Appointed to PG & E Post

Alan R. Bailey has been appointed assistant to the vice president and general manager, Pacific Gas and Electric Co. Mr. Bailey was vice president in charge of operation of Coast Counties Gas and Electric Co., which has been merged with Pacific Gas.

AGA Wins National Safety Award

The National Safety Council has presented to American Gas Association a National Award of Merit for Exceptional Public Service in the Prevention of Home Accidents During the Year 1953-1954. The program which led to this recognition was aimed at safe space heating in America's motels, tourist courts, and cabins.

The award was made at the annual conference of the Safety Council on October 20, by Ned H. Dearborn, president of the

Ned H. Dearborn, president, National Safety Council, presents the Award of Merit to James F. Oates, Jr., a director of AGA.

Council. The engraved certificate was received by James F. Oates, Jr., chairman of the board, The Peoples Gas Light and Coke Co. and a director of AGA.

The award was bestowed in recognition of the work done in a joint program by AGA and the American Automobile Association to eliminate accidents in transient facilities resulting from improper use and installations of unvented room heaters.

Southern Counties Elects 2 to VP

Jay Davis, Jr. and J. A. Millen have been elected vice presidents, Southern Counties Gas Co., following action by the company's board of directors.

Mr. Davis will be in charge of gas system construction and distribution, build-

Jay Davis, Jr.

J. A. Millen

ing construction and maintenance, and technical and engineering services. Mr. Millen will head the transmission and compression system and will represent the company in gas supply and purchase matters.

Mr. Davis, who joined Southern Counties in 1938, was appointed assistant to the vice president in 1949 and manager of construction and distribution in 1953.

Mr. Millen, formerly with Southern California Gas Co., joined the company in 1947, and in 1952 was named manager of transmission and supply.

machine-digging in

City Congestion Above and Below **Ground**

THE MINNEAPOLIS GAS COMPANY recently installed gas mains in such major downtown thoroughfares as Fifth St., Sixth St., Nicollet Ave., and Second Ave. S., in connection with one of the city's biggest repaving programs in years. Shown here are crews of Minnesota Williams Company putting in one of these lines under Fifth St. between Nicollet and Hennepin Aves.

The compactness of the CLEVELAND Trencher and its maximum operator visibility and control—inherent in all CLEVELANDS—made machine-digging practical on this job despite traffic problems and numerous underground obstructions. Advantages like these, enabling CLEVELAND owners to dig *more trench, in more places at less cost,* have earned outstanding preference for CLEVELANDS—among contractors, utilities and municipalities, alike.

Write for Full Line CLEVELAND Bulletin or See Your Local CLEVELAND Distributor

THE CLEVELAND TRENCHER COMPANY
20100 ST. CLAIR AVENUE • CLEVELAND 17, OHIO

CLEVELAND

Rockwell Reorganizes Sales Set-Up

Rockwell Manufacturing Company's Meter and Valve Div., in a reorganization of its entire midwestern sales set-up, has promoted Carl K. Madison, midwestern regional manager, to vice president in charge of new product sales for the entire division. Also, the midwestern sales region has been divided into a southwestern and a smaller midwestern region.

Roy R. Bush, Tulsa, Okla., district manager, has been named midwestern regional manager; and W. R. McLaughlin, manager of the Dallas office, becomes southwestern regional manager.

Mr. Madison joined Rockwell in 1929 as a sales engineer in the Houston district. He became manager of the district in 1944 and was named midwestern regional manager in 1951.

Mr. Bush joined the company's sales staff in Tulsa, in 1934. He later became special sales representative for the Nordstrom Valve Div. In 1952 he returned to Tulsa as district manager.

Mr. McLaughlin joined the company in 1934 as a sales engineer in Dallas and later served as sales manager of the gas division in Pittsburgh and special sales representative in the southern region. In 1952 he was named manager of the Dallas office.

Tapecoat Opens West Coast Office

The opening of a west coast office in the San Francisco area to serve California, Oregon, Washington, Idaho and Nevada has been announced by Tapecoat Co.

The new office will be headed by L. R. Zito, who has been appointed district manager. For the past two years, Mr. Zito has served as district manager in the New York area.

Borger Is Peoples Natural Exec VP

H. Donald Borger has been elected executive vice president of The Peoples Natural Gas Co.

H. Donald Borger

Mr. Borger, who has more than 33 years' service with Peoples, began his career with the company in the Treasury department in 1921. He was made treasurer in 1942, and elevated to vice president and treasurer in 1951. In June of this year, he relinquished his duties as treasurer.

Mr. Borger is a member of various business and social oranizations, including Pennsylvania Natural Gas Men's Association. He had held various committee posts as a member of American Gas Association.

PEERLESS
Type "MP"
ODORIZER UNIT
with SILLERS
FLEX RING CLOSURE
The Peerless Type "MP" Odorization Unit has been designed to provide a complete odorization setup which is easily installed. This odorizer utilizes the Patented Peerless principle of liquid odorant injection.
LOOK AT THESE ADVANTAGES . . .
• Accurate proportioning of odorant into line.
• Safety tank built in. Cannot flood.
• Leakage is eliminated since all welded piping and packless valves are used.
• It occupies a minimum of space. Only one foundation needed.
• A minimum of piping is required for installation.
• Installation time is reduced.
• Maintaining odorizer is quite simple. Odorizer mechanism easily accessible.
• Positive seal of odorizer housing with Sillers Flex Ring Closure.
Write for Bulletin 904 & 905
Peerless Type "MP" Odorizers have many more outstanding advantages, all engineered to give you the most accurate odorizer available.
PEERLESS MFG. CO.
PEERLESS MANUFACTURING CO.
P. O. BOX 13165 ★ DALLAS 20, TEXAS ★ Dixon 8431
REPRESENTATIVES IN ALL PRINCIPAL CITIES

MEN AT WORK

WILLIAM C. BEATTIE has been appointed manager, production department, *Consolidated Edison Co. of New York, Inc.*

THAER BENJAMIN was appointed manager, Salt Lake City, *General Controls Co.*

MELBOURNE P. BINNS is now senior salesman, St. Louis, *Sharples Chemicals, Inc.*

ALLAN J. CAMPBELL has been appointed sales engineer, Eastern div., *Canadian Meter Co.*

E. RUSSELL GRIFFITH is now research engineer, *American Gas Association.*

LEE HANOWER is a business analyst with *Ebasco Services, Inc.*

WALLACE E. HERTEL has been appointed engineer, *The Berkshire Gas Co.*

ROY E. JONES has been elected vice president, *North Shore Gas Co.*

WALTER E. MAX is now general superintendent, Buffalo, *Worthington Corp.*

F. W. MULLER was named manager, *Gustin-Bacon Mfg. Co.*

JOHN R. PFANN has been appointed sales analyst, *Sharples Chemicals, Inc.*

DANIEL J. QUINN has been named vice president sales, Plumbing and Radiator Heating Div., *American Radiator & Standard Sanitary Corp.*

ERIC RUCKELSHAUS is now a senior business consultant with *Ebasco Services, Inc.*

ALAN L. SMITH has been named publicity director, *The Brooklyn Union Gas Co.*

GLYN THOMAS has been named general manager, *Charlotte Tank Corp.*

GEORGE R. WOEHLER has been elected vice president and comptroller, *Southern Indiana Gas and Electric Co.*

GEORGE L. ZIEGLER was appointed manager, parts service, Buffalo, *Worthington Corp.*

Annual Awards Made At AGA Convention

Michael Anuskiewicz, engineer of development and planning, The Brooklyn Union Gas Co., and George C. Dormer, assistant chief engineer, The Manufacturers Light and Heat Co., Pittsburgh, shared one of the highest honors given in the gas industry. Both were recipients of the Beal Medal Award of AGA, which is presented annually to the individual or individuals who were authors of the most outstanding technical paper during the preceding year.

The Beal Award is the oldest established award of AGA, consisting of a cash prize and an engraved medal. The award was originated by the late W. R. Beal, and is now sponsored by Ernest R. Acker, president, Central Hudson Gas and Electric Corp.

Mr. Dormer was honored for his paper, "Practical Problems of Odorization," presented at the Operating Section's Chemical, Engineering and Manufactured Gas Production Conference, and Mr. Anuskiewicz was cited for a paper, "Development of an Overpressure Protection Program for a Distribution System," presented at the 1954 Distribution, Motor Vehicles and Corrosion Conference of the Operating Section.

Distribution Achievement Award

Fred H. Bunnell, general gas distribution supervisor, Consumers Power Co., received the AGA Distribution Achievement Award sponsored by American Meter Co.

The award comprises a certificate of merit and $1,000 in cash and is presented

Fred E. Bunnell receives award from AGA president Earl H. Eacker.

each year to the individual judged to have made the most outstanding contribution to the science and art of gas distribution in the past year or in the past five years.

Mr. Bunnell received the award for his work in utilizing appliance regulators on customers' systems to increase distribution system capacity at minimum expense.

Meritorious Service Award

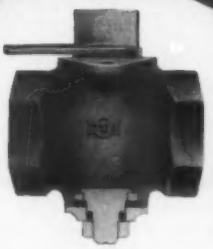
Earl J. Jacobs, of Michigan Wisconsin Pipe Line Co., was given the highest honor that the gas industry can bestow on an individual for outstanding bravery. He was presented with the AGA Meritorious Service Medal, which consists of a gold medal, a button and a certificate of merit.

Mr. Jacobs won the award for conspicuous bravery when he rescued a fellow worker overcome by fumes on October 27, 1953, while cleaning a natural gas dehydra-

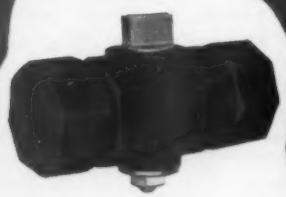
for STOPS that are TOPS

IT PAYS TO BUY HAYS

7405
Iron Body, Galvanized, Bronze Plug Stop



7490
"Key-Lok" Tamper Proof Stop Lockwing—Iron Body, Bronze Plug



7500
Threadless Gas Stop Iron Body, Brass Plug

Service Line Stops—Meter Stops
Appliance Stops

Tamper Proof and Standard Patterns

Iron Body with Brass Plug
Black or Galvanized
Also All Brass Stops

Flat Head—Flat Head with Lockwing

Full Range of Sizes

Quality Assured . . .
By Precision Machining—
Individual Testing—
Rigid Inspection

Quality Proven . . .
By Supplying the Gas Industry for Over 80 Years

Standard Packaging for Easy Handling, Space Saving Storage . . . Another HAYS First

Write for literature, or ask "The Man from Hays"

HAYS
GAS SERVICE PRODUCTS
HAYS MANUFACTURING CO.
ERIE, PA.

tion vessel. Mr. Jacobs went into the vessel and lifted the unconscious man so fellow workers could pull him out, thus endangering his own life. Mr. Jacobs remained to help revive the stricken man.

Safety Awards

AGA Safety Awards were presented to 13 companies:

Consolidated Edison Co. of New York, Inc.:
Citizens Gas and Coke Utility, Indianapolis;
The Peoples Natural Gas Co., Pittsburgh;
Texas Eastern Transmission Corp.;
North Shore Gas Co., Salem, Mass.;
The Narragansett Electric Co., Providence, R. I.;
Southern Natural Gas Co., Birmingham, Ala.;
Elizabeth & Suburban Gas Co., Elizabeth City, N. C.;
East Tennessee Natural Gas Co.;
Chicago District Pipeline Co.;
Cincinnati Gas & Electric Co.;
Wisconsin Power & Light Co.; and
Florida Power & Light Co.

Accounting Award

Harry S. Hahn, assistant treasurer, Ohio Fuel Gas Co., was awarded the Order of Accounting Merit for his work in the accounting section of AGA. The award comprises a gold pin and a certificate.

A member of the customer collections committee since 1947, Mr. Hahn has served as chairman of that committee and has prepared numerous studies in the field of customers collections.

Distinguished Service Award

Charles H. Mann, assistant treasurer, The Columbia Gas System, Inc., received the AGA Distinguished Service Award for his outstanding contributions to the gas industry.

The award, comprising an engrossed certificate and a financial recognitian, is one of the highest honors bestowed in the gas industry. It is given to the person whom the AGA board of directors deems to have made individual contributions of a distinguished or outstanding character in the general interest of the gas industry.

Mr. Mann, as a member and as chairman of the AGA taxation committee, and as a member and as vice-chairman of the AGA executive committee on taxation, and through participation in accounting and taxation activities of the Association over a number of years, has rendered exceptional service to the entire gas industry.

He has contributed in studies and advice on all tax problems of the industry. His work with technical and policy committees resulted in effective presentation of utilities' tax problems.

Home Service Awards

Individual accomplishments in the gas utility home service field were accorded national recognition when five winners were presented with AGA Achievement Awards sponsored by McCall's Magazine. Cash prizes totaling $1,000 and bronze plaques were awarded to individual members of home service organizations judged to have made the most effective contributions on the basis of papers submitted, to the advancement of modern homemaking by promoting the use of gas and modern gas equipment.

The awards were made to: Mary Louise Bohn, home service director, Laclede Gas Co.; Marjorie T. Chandler, home service director, The Consumers' Gas Co. of Toronto; Dorothy Farrell, assistant home economics director, The Manufacturers Light and Heat Co., Pittsburgh; Ida Lansden, staff assistant, home service department, Washington Gas Light Co.; and Eleanor V. Wiese, supervisor, home economics department, Public Service Electric and Gas Co., Newark, N. J.

Home Service Award Winners, below: Marjorie Chandler, Eleanor Wiese, Ida Lansden, Dorothy Farrell and Mary Louise Bohn congratulated by Elizabeth Sweeney Herbert of McCall's Magazine, sponsor of the award.

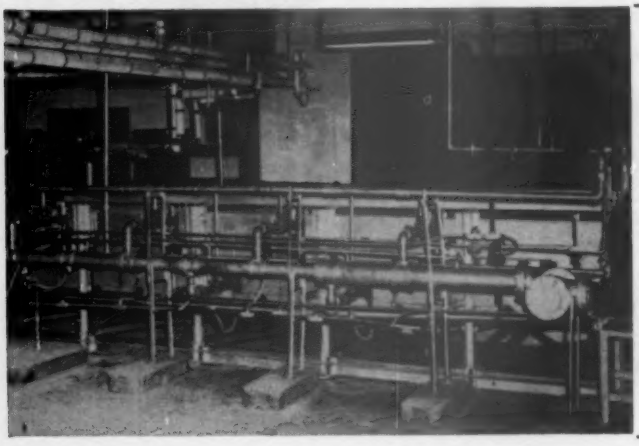
CLARK GETS GAMA AWARD FOR DISTINGUISHED SERVICE

Hale A. Clark, a leading authority on gas utilization in industrial processing, received the distinguished service award of Gas Appliance Manufacturers Association. The award was made by F. C. Schaefer, chairman of GAMA's industrial gas equipment division, during the American Gas Association convention.

Mr. Clark, vice president of Michigan Consolidated Gas Co., is credited with development of many gas techniques for industrial processes.

The award citation referred to research and development conducted under Mr. Clark's direction in Detroit as having made that city "a center to which industrial fuel engineers all over the country turn for information and assistance in dealing with processes which require precise control." It also pointed out that his pioneering has made his company one of the largest distributors of industrial gas.

Mr. Clark was a founder of the Midwest Industrial Gas Council in the late 1920's. He has served as chairman of the industrial gas section of AGA, chairman of the committee on industrial and commercial gas research and as a member of the committee on marketing research.



Use RED RAY burners
for Maximum Oven Efficiency

Increased production for smaller ovens. Combination of radiant heat and convection give greater results in less space.

Illustrated: Oven equipped with Red Ray Burners. Burners located above and below conveyor belt to heat both sides of material.

Red Ray Manufacturing Co., Inc.
455 W. 45th St. New York 36, N. Y.
Tel: Plaza 7-5174

PARKER

Continued from page 23

the order on his books but by mistake shipped the merchandise. In later correspondence the seller offered to extend the usual time for payment if the purchaser would keep and pay for the appliances. The purchaser did not respond or answer this letter, but kept the merchandise for several months.

The court held that the purchaser must pay for the merchandise and explained that the purchaser's silence plus his failure to promptly return the merchandise resulted in a valid contract.

For comparison, see Lamis, 229 N. W. 756. This court held that where a purchaser failed to respond to a seller's telegram and permitted the seller to ship the merchandise five days later, the purchaser must accept and pay for the merchandise because his silence made a valid contract. This court said:

"This letter . . . was received by the plaintiff (purchaser) five days before the date of shipment and having been retained by him without objection, we think it must be held that, as a matter of law, to have become the contract between the parties."

In Pierce, 230 S. W. 1116, the court said that generally speaking silence does not often constitute consent or valid acceptance of an offer, but that it may when coupled with other circumstances.

Also, the courts hold that a valid contract is made where a seller makes an offer, the purchaser submits a counter offer, and then the seller by his silence and without answering the counter offer, ships the merchandise to the purchaser. See Hartwell, 299 Ill. App. 399.

Also, see Excelsior, 23 Ky. L. Rep. 1834. Here, a purchaser wrote a letter to a seller making a counter offer different from the original offer submitted by the seller. The seller did not respond to this counter offer but shipped the merchandise. The court held that the seller's silence rendered the counter offer made by the purchaser a completed and valid contract.

And see Everett, 289 Fed. 686. The testimony showed: A purchaser sent a written offer to buy merchandise. The seller accepted the offer with some modifications and then shipped the merchandise which the purchaser accepted.

Modifications unwritten

The court held the purchaser obligated by the modifications in the seller's counter offer. This court said that if the purchaser did not expect to be bound by the modifications he should have so written the seller or refused to accept delivery of the merchandise. Also, see to the same effect the following cases: Tilt, 5 Daly (N.Y.) 19; Roberts, 48 Mo. App. 239; White, 161 Cal. 453; and Riverside, 114 Conn. 492.

In Metzer, 32 App. D. C. 434, it was shown that a salesman took an order for gas appliances and sent it to his employer for acceptance. The employer did not either accept or reject the order for several months. Since it had not been the custom of the employer to ship orders to this purchaser without formally accepting or approving the salesman's orders, the court held that the purchaser could not recover damages for the seller's failure to ship the merchandise.

In Show, 201 Pac. (2d) 1066, the testimony showed: A seller mailed an offer to a purchaser to sell certain merchandise. The purchaser answered the letter in which he stated that he intended to accept the offer. However, the seller in his offer had not stipulated credit, yet the purchaser in his letter of acceptance stated that he wanted 60 days credit.

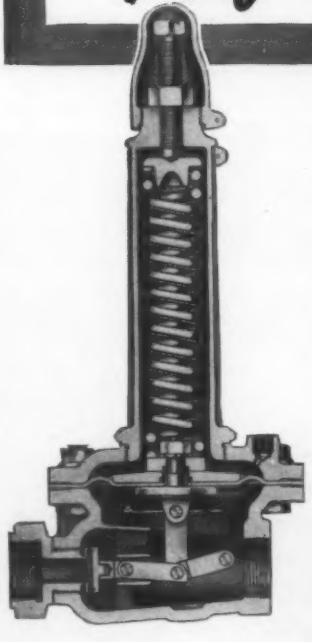
In subsequent litigation the higher court held that no valid contract was made, and that the seller could rightfully refuse to deliver the goods to the buyer, although he did not answer the purchaser's letter of conditional acceptance.

See Russell, 106 Wis. 329. Here it was shown that a salesman took an order for merchandise to be shipped "between now and July 1st". The seller confirmed the order, stated that the order would be shipped in June, terms 30 days, with interest at 8%. The buyer did not reply and the higher court held that his silence did not make a valid contract.

M. G. Cook Joins R. W. Stafford Co

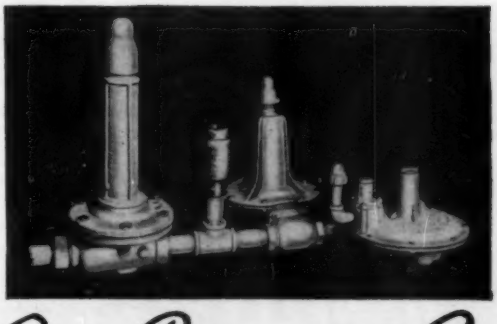
Marshall G. Cook, formerly executive assistant division manager, Indianapolis div. of Phillips Petroleum Co., has joined the staff of The R. W. Stafford Co., Evanston, Ill.

IN THE HIGH PRESSURE FIELD
THERE IS SAFETY
IN *Reynolds* ...



Accurate, Safe Control

of tremendous pressures is an ever present problem in the gas field. Reynolds field Regulator illustrated at left is one of the many high pressure regulators built by Reynolds. It is thoroughly tested and proved in service. It handles up to 1,000 pounds safely reducing same to pounds. For more than fifty-five years Reynolds has designed and built gas regulators. Safety, accurate performance, years of service—these are some of the built-in factors responsible for Reynolds enviable position in the Gas Control Field.



Reynolds Gas Regulator Co.
ANDERSON, INDIANA, U. S. A.
GAS CONTROL SINCE 1892

FALVEY

Continued from page 31

trators of trusts, estates and other similar conservative funds.

Common stocks necessary

Addressing a large audience of trust administrators, Mr. Strong stated that common stocks now are a necessary part of the investment fabric, describing this as "the big change" of the past 50 years.

"In good times or bad, war or peace, inflation and deflation . . . we are in equities for all time and we had better look closely at the reasons why we are there, and how we can justify being there," he said.

More specifically, he enumerated the reasons for "being there" as follows:

1. A more stable interest rate structure, 2. A more favorable equity market in which to function, and 3. A more mature industrial climate in which to invest.

Today, he pointed out, the United States is the financial center of the world, with the dollar the free world's hard currency. This country has become a cheap money center, as London was for past generations. Mr. Strong regards the cheap money market as the primary influence in the trend toward equities. Also, the changed character of the equity market, resulting from the supervisory methods of the stock exchanges, the Federal Reserve, and the Securities and Exchange Commission, have combined to reduce speculative influences. Finally, the generally sound position of industry has made more corporations worthy of investment consideration. In this connection, he points out that management now inspires confidence, and is even eager to discuss facts, figures and policies with investors.

Rockwell to Build Plant in Kentucky

Rockwell Manufacturing Co. has announced the selection of Russellville, Ky., as the site for a new plant expected to go into operation in mid-1955.

The plant, located on a 30 acre site, will have from 80,000 to 100,000 square feet of floor space and is expected to cost from $800,000 to $1,000,000, exclusive of production equipment. Construction will start in early January and initial occupancy is scheduled during May.

Elect 2 Inst of Gas Technol Trustees

Two new members were named to the board of trustees of the Institute of Gas Technology, Chicago, and 7 others were reelected for three-year terms during the institute's recent 13th annual meeting.

The new trustees are Robert Hornby, executive vice president, Pacific Lighting Gas Supply Co., Los Angeles, and George Naff, president, Texas Eastern Transmission Corp.

The following trustees whose terms expired this year were reelected:

F. M. Banks, president, Southern California Gas Co.; E. J. Boothby, president, Washington Gas Light Co.; James D. Cunningham, president, Republic Flow Meters Co., Chicago; E. H. Eacker, president, Boston Consolidated Gas Co.; James F. Oates, Jr., chairman of the board, Peoples Gas Light and Coke Co., Chicago; J. H. Wolfe, vice president, Consolidated Gas Electric Light and Power Co., Baltimore, and G. S. Young, Columbia Gas Systems, Inc., N. Y.

The board of trustees is comprised of 28 members including Dr. John T. Rettaliata, president of Illinois Institute of Technology, who also heads the gas institute.

Frank H. Lerch, Jr., director of Consolidated Natural Gas Co., N. Y., was renamed chairman of the board of trustees.

Named to the executive committee of the board of the gas institute were: Frank H. Adams, president of Surface Combustion Co.; Mr. Boothby; Mr. Cunningham; Thomas Drever, chairman of the board, American Steel Foundries, Chicago; Dr. Rettaliata; Mr. Lerch; Mr. Oates; Carl J. Sharp, chairman of the board, Acme Steel Co., Chicago, and F. C. Smith, president, Houston Natural Gas Corp.

Richmond Gets 2 Koppers Reformers

A contract for the installation of two Koppers-Hasche reformers, to supplement present gas facilities of the Richmond, Va. department of public utilities, has been awarded to the chemical and gas department, Engineering and Construction Div. of Koppers Co., Inc.

Scheduled for completion by the end of the year, the two units will have a combined capacity of 5 MMcf of gas per day.

IRON SPONGE

for high efficiency gas purification at high pressures

Iron Sponge is your key to sulfur-free gas at minimum processing cost. Iron Sponge has high efficiency at low pressures or at today's high pressures and high temperatures. It absorbs *more* H_2S, gives long service between foulings, and is easily regenerated. Investigate it for your purification problem today!

CONNELLY Inc.

3154 S. California Ave., Chicago 8, Illinois
Elizabeth, N. J. • Los Angeles, California

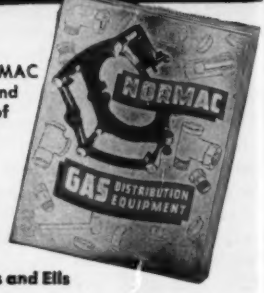
NORMAC

Couplings, Sleeves and Fittings . . .

- Save Time
- Handle Easily
- Give Dependable Service

Because They Offer...

- Maximum Deflection
- Ease of "Stabbing"
- Complete Confinement of Rubber



Today, write for your free copy of this NORMAC catalog . . . complete with illustrations and specifications on the entire Normac Line of Couplings, Sleeves and Fittings. It's a profitable step in the cost-cutting direction.

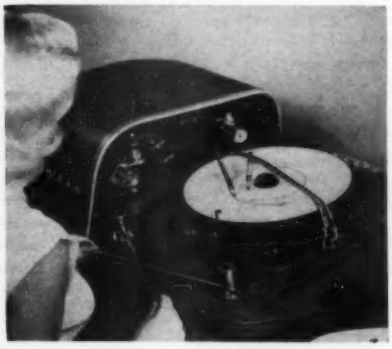
NORTON-McMURRAY MFG. CO.
122 South Michigan Ave., Chicago 3

Couplings • Meter Bars • Sleeves
Cocks • Ball Joint Clamps • Service Tees and Ells

NEW EQUIPMENT

Integrator

This new model integrator, which mechanically computes the metered volume of gases, steam or liquids from orifice meter

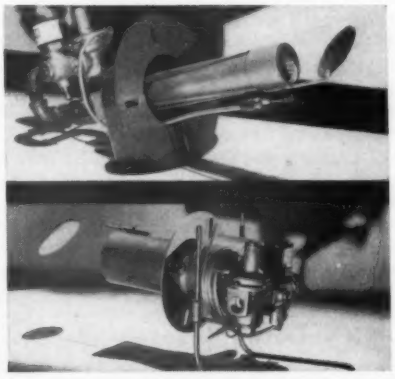


charts, features a counter setback assembly operating from the main calibration post that enables the operator to run practically all ranges of charts at any base pressure. As a result, range settings are almost infinite in number, the company reports.

Rockwell Mfg. Co., 400 No. Lexington Ave., Pittsburgh 8, Pa.

Gas burner

Two new monoport gas burners have been introduced by the manufacturer. Designed for conversion applications and as original equipment, one of the burners, for conversion applications, is rated on natural or mixed gas from 65,000 to 185,000 Btu input and on LP gas from 75,000



to 105,000 Btu input. The second burner line is offered in ranges from 65,000 to 300,000 Btu input on natural and mixed gas, 65,000 to 150,000 on LP gas.

SNG1-A and V Line. Barber Gas Burner Co., 3708 Superior Ave., Cleveland.

Capacitrol

A new, ultra-sensitive, self-contained capacitrol, this new instrument is used in the control of continuous fuel fired process applications which require a true proportional relationship between fuel input and a continuously measured temperature. The unit incorporates a modified bridge type control circuit. An integral polarized relay, a component of the feed back circuit, is used as the actuator for a fuel valve power unit. Unbalance causes the valve operator to move in a direction to restore the temperature toward the set point and again bring the electrical bridge into balance. Thermocouple break protection, which will automatically shut off fuel input in case of thermocouple failure or broken thermocouple connections, is standard.

Model 405. Wheelco Instruments Div., Barber-Colman Co., Rockford, Ill.

Vote Coming on 1956 Exposition

The question of whether or not to resume the exposition of gas appliances and equipment in conjunction with the 1956 convention of American Gas Association will be referred to the members of Gas Appliance Manufacturers Association, the GAMA board has agreed.

AMERICAN

Gas Fundamentals

—the continuing educational and refresher course in gas industry techniques, operations and management has been enlarged in scope by the editors of the GAS JOURNAL to provide more-and-more information about the basic functions, responsibilities and practices of every department in a modern gas utility. Also, a wealth of information on gas utilization will be presented in the chapters that are now planned or in preparation.

American Gas Fundamentals is just one more reason why you should have your own copy of the *new* GAS JOURNAL. Uniform 4-page chapters of *Fundamentals* will appear each month, as they have since January 1951.

A FEATURE OF

AMERICAN Gas Journal

THE FIRST REALLY *New* PIPE FINDER IN 20 YEARS

"Electronic Witch"

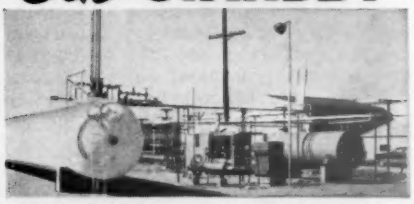
LOCATES, with greater depth penetration, exact position of buried pipe. . . . Traces further and more accurately.

The basic "Electronic Witch" unit, complete and ready to operate.

The *"Electronic Witch,"* a really new instrument, will out-perform and outlast any other pipe finder . . . with greater accuracy . . . and with more pronounced indications of buried objects . . . employs completely new electronic circuit . . . sturdy and trouble free. Write *now* for Bulletin H.

JOSEPH G. POLLARD CO., INC.
Pipe Line Equipment
New Hyde Park New York

GAS STANDBY



Packaged 12 mcfh plant designed and built by Draketown for...

- ★ Utility or Industrial standby
- ★ Peak shaving and augmentation
- ★ 100% Town or plant supply

A Packaged Draketown Propane Plant will help you reduce demand charges; provide a supply of gas during curtailment periods.. at the turn of a valve... or supply that outlying section or plant 100% if desired.

DRAKETOWN® PROPANE PLANTS

"Good Gas Insurance"

If you have a gas problem, we can help you. We operate from coast to coast and overseas.

Phone or write today—no obligation.

DRAKE & TOWNSEND INCORPORATED

Consulting • Design • Engineering • Construction

11 WEST 42ND STREET • NEW YORK 36, N. Y.

SUPERIOR METERS

RESPECTED BY TWO GENERATIONS OF METER MEN

★

ALL SIZES 5B TO 75C

★

PARTS—REPAIRS DIAPHRAGMS

★

OVER 1,000,000 SUPERIOR METERS ARE OUR BEST SALESMEN

SUPERIOR METER COMPANY, INC.

167 41st ST., BROOKLYN 32, N.Y.

MERRIAM

Continued from page 14

merly gone to carbon black use gravitated to the pipeliner's markets attracted by higher prices. New interest was shown in exploring for gas in areas or in production zones where natural gas was more likely to be found than oil. There can be no question but that the supply of natural gas available for public consumption has been materially increased by reason of the more attractive field prices available to the natural gas producer.

"Distributors and pipeliners have over $10-billions invested in facilities designed to provide a market for the producer's supply of natural gas. In addition, the 20 million customers of the natural gas industry have billions of dollars invested in gas appliances.

Producer's public responsibility

"The producer can not lightly pass over the public interest involved in an operation of such magnitude, nor can he pass over his obligation to the other members of the natural gas team who have invested billions of dollars of the public's money on the basis of dedicated gas reserves.

"The producer must recognize his status as a member of the natural gas team, just as the distributor and pipeliner must of necessity recognize theirs.

"In his understandable haste . . . to provide a lasting solution, any answer sought by the producer must not operate solely to his own advantage. He must consider the effect on the distributor and pipeliner . . . and on the consumer and the public.

"This does not mean that the producer should meekly submit to utility type regulation which would only operate to strangle the natural gas producer, and through him the entire natural gas team."

The pipeliner was described by Mr. Merriam as the middle-man, between the producer and the distributing utility.

"The pipeliner is the only one of the natural gas team who normally deals with both of the other members of the team," he said. "The pipeliner is therefore the only member of the team that hears at first-hand the problems of each of the other 2 members, and that catches hell from both.

"The fact that there is dissension between the distributor and the producer means that the pipeliners have been unsuccessful in acting as go-between in interpreting the problems of the producer and distributor to each other.

"A distributor who is not sold on the problems of the producer obviously cannot explain such problems to the consumer or to the public in the communities where the distributor operates. This is extremely unfortunate, as no satisfactory team solution can be achieved if the public does not understand the problem. The public's representatives in Congress in turn are necessarily handicapped in finding the correct solution in the public interest under the circumstances."

Approach to industry-solution

The approach to a solution was suggested in Mr. Merriam's closing comments.

"The natural gas industry has got to stop looking for an answer that benefits only one member of the team and hurts the others, the consumer and the public.

"A lopsided answer is no answer at all. It solves nothing in the long run. It creates more problems than it solves.

"No satisfactory answer will ever be found unless it is searched for on a team basis.

"No other answer can serve the public interest and meet our public responsibility.

"An answer must be found that meets the problems of all team-members and of the public that all 3 of us serve, and to which we are all subservient.

"If, however, each member approaches the problem from the team point-of-view, then and then only, can a long range satisfactory answer be found that adequately protects the interests of all members of the team, and of the consumers and of the public."

Remote Equipment Control Shown at AGA Convention

A complete system of electronic equipment for controlling distant, virtually-unattended stations was shown to the operating section of American Gas Association during the convention. The controls and the equipment controlled were located in 2 separated rooms out of view of the audience. The audience, however, could see in full color exactly what was happening in the distant rooms through the medium of closed-circuit television.

The distant rooms served as dispatch sta-

Hotel Jefferson

Atlantic City
New Jersey

Central Location overlooking Boardwalk and convenient to Piers, Churches and Theatres. Near Rail and Bus Terminals.

•

Inviting Lobbies and Parlors. Sun Decks Atop. All Rooms delightfully furnished. American and European Plans.

•

Conducted by Hospitable Ownership Management that delights in catering to the wishes of American families.

FETTER FAMILY MANAGEMENT

Atlantic City, New Jersey

tion and remote compressor station. Only microwave radio connected them. With this communications and control link, the

H. A. Rhodes, Transcontinental Gas Pipe Line Corp., and chairman of the Operating Section's communications committee, took part in the section's session on industrial television for gas dispatching.

dispatcher received and sent teletype, telephone, and radio messages between the two "stations," and also started, adjusted the speed, and precisely-controlled the "operations."

He determined the effect of his actions by observing meters which directly reported this information to him via the microwave radio and telemetering equipment.

In the demonstration, it was unnecessary for the "compressor station" to be operated by attendant personnel. All functions were remotely-controlled by the dispatcher through microwave radio and various switching and telemetering equipment.

The demonstration was presented by T. R. Rhea and E. W. Kenefake, General Electric engineers, who emphasized that the outstanding features of remotely controlling a gas industry operating equipment are centralizing the operation, reducing operating costs, speeding maintenance by improving communications, and making more efficient use of units.

NEW BULLETINS

HORIZONTAL MIXED AND AXIAL FLOW PROPELLER PUMPS. Incorporated in this new bulletin are dimensions, a materials table and sectional drawings showing the features of the manufacturer's mixed flow and axial flow pumps, with detailed explanations of each. The units are specially designed for a wide range of process industry applications and are available in sizes 10″ to 24″ with pressures to 25 psi and capacities to 16,000 gpm.

Bulletin 7280. Pp. 4. Ingersoll-Rand Co., 11 Broadway, New York 4.

BRISTOL METAMETER TELEMETERS. An expanded edition of an earlier bulletin illustrating and describing the company's complete line of metameter telemeters and accessories, this new bulletin presents information on telemetering over telephone circuits, carrier current, private wires, microwave telemetering, telemetering with selective calling and time multiplexing telemetering. Specific information and application illustrations are given on how the process may be applied to the measurement and transmission of pressure, flow, liquid and water level, mechanical motion, electrical units and totalized power load. The bulletin is illustrated with almost 100 photographs and drawings.

Bulletin M1710. Pp. 44. The Bristol Co., Waterbury 20, Conn.

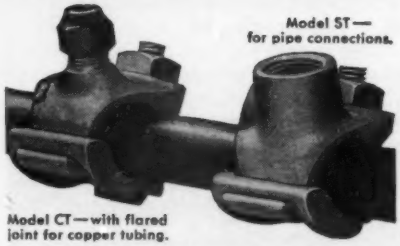
ACF LUBRICATED PLUG VALVES. The lubricated plug valves described in this bulletin cover a variety of services for gasoline, oil, water, air, gas, acids, caustic solutions, chemicals and other fluids. Features of the valves are presented along with brief descriptions of the general types available—short pattern, venturi, diamond port and v-port, steam-jacketed, multiport and round opening valves. The bulletin contains numerous photographs, schematic drawings, charts and tables.

Catalog No. 5. Pp. 40. ACF Industries, Inc., Valve Div., 1501 E. Ferry Ave., Detroit 11.

QUICK-CONNECT TEL-O-SET INSTRUMENTS. Information about the manufacturer's quick-connect miniature recorder and controller is presented in this bulletin. A description of the instruments and their operation is included. Controller features, recorder features and specifications are presented. The bulletin contains illustrations and schematic diagrams.

Bulletin 7201. Pp. 12. Minneapolis-Honeywell Regulator Co., Industrial Div., Station 64, Philadelphia 44.

Quick
easy way
to make gas connections
FOR LAUNDRIES, DRYERS, REFRIGERATORS, AND OTHERS



Model ST—for pipe connections.

Model CT—with flared joint for copper tubing.

SKINNER-SEAL SADDLE TEE—for making gas and water connections. No pipe cutting or threading. Quick. Easy. Cuts costs. For gas refrigerators, home laundries, heaters, etc. Write for circular.

Approved by Underwriters' Laboratories, Inc.

M. B. SKINNER CO.
SOUTH BEND, 21, IND., U. S. A.

1897 1954

GOODMAN USED SINCE 1897 — 2" HANDLE & LOCKING SLEEVE — GAS MAIN STOPPER

PIPE STOPPERS OF ALL KINDS

•

SAFETY GAS MAIN STOPPER COMPANY

523 Atlantic Ave.,
Brooklyn 17, N. Y.
Cable Address: GASTOPPER, N. Y.

UNIVERSAL
INSULATED METER NUTS

QUICK INSTALLATION!
POSITIVE INSULATION!
LABOR SAVING!

Gas never touches nylon liner . . . gasket holds pressure. Installation in less than five minutes with no repiping required. Sizes for all iron or tin meters with swivels ½″ to 2″ pipe sizes, inclusive. Write for bulletin 522.

UNIVERSAL
CONTROLS CORPORATION
731 WEST DAVIS STREET • DALLAS 8, TEXAS

GAS INDUSTRY CALENDAR

November

8-12 National hotel exposition, Kingsbridge Armory, New York.
17-19 Wisconsin Utilities Association, gas and electric sections convention, Schroeder Hotel, Milwaukee, Wis.
17-19 Southeastern Gas Association, Sir Walter Hotel, Raleigh, N. C.
28-December 3 The American Society of Mechanical Engineers, Statler Hotel, New York.

December

6-7 SGA advisory council and management conference, Point Clear, Ala.

January, 1955

13-20 National housewares & home appliance exhibits, Navy Pier, Chicago.
16-20 National Association of Home Builders convention, Conrad Hilton Hotel, Chicago.
24-25 Industrial Furnace Manufacturers Association, Inc., Sheraton-Cadillac Hotel, Detroit.
28 Pennsylvania Gas Association, mid-winter sales conference, Benjamin Franklin Hotel, Philadelphia.

February, 1955

7-11 Western winter radio-television and appliance market, Western Merchandise Mart, San Francisco.
13-15 Mid-winter conference, public utility buyers, National Association Purchasing Agents, The Shamrock, Houston.

March, 1955

7-9 Mid-West Gas Association, St. Paul Hotel, St. Paul, Minn.
24-25 Oklahoma Utilities Association convention, Mayo Hotel, Tulsa, Okla.
24-25 New England Gas Association, annual meeting, Hotel Statler, Boston, Mass.

April, 1955

12-14 AGA sales conference on Industrial and commercial gas, Hotel Statler, Boston, Mass.
12-15 AGA distribution, motor vehicles and corrosion conference, Netherland Plaza, Cincinnati, O.
19-21 Southwestern gas measurement short course, University of Oklahoma, Norman, Okla.
20-22 Indiana Gas Association, annual meeting, French Lick Springs Hotel, French Lick, Ind.
25-27 Mid-West regional gas sales conference, Edgewater Beach Hotel, Chicago.

May, 1955

1-4 LPGA annual convention, Conrad Hilton Hotel, Chicago.
2-6 AGA industrial gas school, Wm. Penn Hotel, Pittsburgh.
9-10 AGA gas supply, transmission and storage conference, Wm. Penn Hotel, Pittsburgh.
9-13 National restaurant exposition, Navy Pier, Chicago.
16-18 Southern Gas Association, New Orleans, La.
17-19 Pennsylvania Gas Association, Pocono Manor Inn, Pocono Manor, Pa.
23-25 GAMA annual meeting, Ambassador Hotel, Los Angeles.
23-25 AGA chemical, engineering and manufactured gas production conference, Hotel New Yorker, New York.

June, 1955

5-9 Canadian Gas Association, annual meeting, General Brock Hotel, Niagara Falls, Ontario, Canada.
9-10 Natural Gas and Petroleum Association of Canada, Royal Connaught Hotel, Hamilton, Ontario, Canada.
26-29 Michigan Gas Association, Grand Hotel, Mackinac Island, Mich.

July, 1955

18-22 Western summer radio-television and appliance market, Western Merchandise Mart, San Francisco.

September, 1955

7-9 Mid-West Gas Association, gas school and conference, Iowa State College, Ames, Ia.
9 New Jersey Gas Association, Hotel Monmouth, Spring Lake, N. J.
27-30 International Gas Union 6th conference, Hotel New Yorker, New York.

October, 1955

17-19 AGA-PCGA annual convention, Los Angeles.
17-21 National metal exposition, Philadelphia.

November, 1955

14-17 American Petroleum Institute, San Francisco.

PROFESSIONAL DIRECTORY

RICHARD W. STAFFORD
CONSULTING GAS ENGINEER
2944 Grant Street, Evanston, Illinois — Phone UNiversity 4-6190

COAL AND COKE HANDLING
Complete engineering and installation service for coal and coke handling, screening, crushing, skip hoists and storage bins, including alterations to existing conveying and screening plants.
ROBINS ENGINEERS DIVISION
HEWITT-ROBINS (HR) INCORPORATED
157 Chambers Street, New York 7, N.Y.

Let Us Install Your **LP GAS PLANT**
Owners of over 80 PEACOCK PLANTS know:
"There's no substitute for experience"
PEACOCK CORPORATION
Box 268, Westfield, N. J. — Westfield 2-6258

DRAKETOWN ® PROPANE PLANTS
★ *Standby*
★ *Augmentation*
★ *100% Town Supply*
Design · Engineering · Construction
DRAKE & TOWNSEND — 11 WEST 42ND STREET, NEW YORK 36, N. Y.

CHARLES R. BELLAMY
NATURAL GAS—MANUFACTURED GAS
AND MIXED GAS PROBLEMS
44 Prospect Ave. · Montclair, N. J. · 2-3692
205 East 42 St. · New York 17 · MU 6-4361

LP-GAS SPECIALISTS
"YEARS OF EXPERIENCE IN ONE PACKAGE"
complete LP-gas plants
engineered • designed • installed
H. Emerson Thomas & Associates, Inc.
P. O. BOX 270 WESTFIELD, N. J. WE 2-2800

Engineers, Designers and Manufacturers of
LP-GAS STAND-BY PLANTS
and special equipment for every requirement
BUTANE AIGAS PROPANE
TELEPHONE TRINITY 0845
AMERICAN LIQUID GAS CORPORATION
1109 Santa Fe Avenue · Los Angeles 21, California